Land and Resource Management Plan

Final Environmental Impact Statement

Okanogan National Forest

Preface

Preparation of a Land and Resource Management Plan (Forest Plan) for the Okanogan National Forest is required by the Forest and Rangeland Renewable Resources Planning Act (RPA) as amended by the National Forest Management Act (NFMA). Regulations developed under the RPA establish a process for developing, adopting, and revising land and Forest Plans for the National Forest System (36 CFR 219). This Forest Plan replaces previous resource management plans prepared for the Okanogan National Forest. Upon approval, subsequent activities affecting the Okanogan National Forest must be in compliance with this Forest Plan. In addition, permits, contracts, and other instruments for the use and occupancy of National Forest System land must be in conformance with this Forest Plan.

If any particular provision of this Forest Plan, or application of the action to any person or circumstances is found to be invalid, the remainder of this Forest Plan and the application of that provision to other persons or circumstances shall not be affected.

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Chapter 1: Forest Plan Introduction

Purpose of the Forest Plan

The Okanogan National Forest Land and Resource Management Plan (Forest Plan) guides all natural resource management activities and establishes Management Standards and Guidelines for the Okanogan National Forest and those portions of the Wenatchee and Mt. Baker-Snoqualmie National Forests that are administered by the Okanogan National Forest. The Forest Plan describes resource management practices, levels of

resource production and management, and the availability and suitability of land for resource management.

The Forest Plan:

- establishes Forestwide multiple-use goals and objectives;
- establishes Forestwide standards and guidelines applying to future activities,
- establishes management area direction including management area prescriptions and standards and guidelines applying to future management activity:
- establishes the Allowable Sale Quantity for timber and identifies land suitable for timber management:
- establishes monitoring and evaluation requirements:
- establishes multiple-use land use allocations for those roadless areas that were reviewed in the Roadless Area Reviews and Evaluation and The Washington State Wilderness Act of 1984, and not recommended for wilderness designation.

The Forest Plan embodies the provisions of the National Forest Management Act (NFMA), the implementing regulations, and other guiding documents. Land use determinations, prescriptions, and standards and guidelines constitute a statement of the Plan's management direction; however the projected outputs, services, and rates of implementation are estimates and are dependent on the annual budgeting process.

The Forest Plan will be revised on a ten-year cycle or at least every fifteen years.

Relationship of the Forest Plan to Other Documents

This Forest Plan establishes direction for managing the land and resources on the Okanogan National Forest. The Forest Plan results from extensive analysis and considerations that are addressed in the accompanying final Environmental Impact Statement (EIS). A Record of Decision (ROD) documenting decisions for managing the Okanogan National Forest also accompanies the final EIS. The planning process and the analysis procedures used to develop this Forest Plan are described or referenced in the final EIS. The final EIS also describes other alternatives considered in the planning process. Specific activities and projects will be planned and implemented to carry out the direction in this Forest Plan The Okanogan National Forest will conduct site specific environmental analysis on projects and activities. The subsequent analysis will use the data and evaluations in the Forest Plan and final EIS as its basis. Project analysis will be tiered to the final EIS and the ROD for the final EIS.

The Pacific Northwest Regional Guide, filed with the Environmental Protection Agency in June 1984, provides direction for the Okanogan National Forest, and it includes standards and guidelines addressing the major issues and management concerns addressed at the Regional level, to facilitate Forest planning. The Regional Guide was amended in December 1988 with the final supplement to the EIS for the Regional Guide – Spotted Owl Guidelines,

The final EIS is tiered to the November 1988 final EIS and ROD for Managing

Competing Vegetation. The 1988 decision permits all methods of managing competing with unwanted vegetation but emphasizes prevention. The decision also directs the forests to make site by site environmental analyses.

The 1984 Early Winters Alpine Winter Sports Study final EIS decision, the 1974 North Cascades Joint Plan for the National Park Service and the Forest Service, and the 1982 Pacific Crest National Scenic Trail Comprehensive Plan are incorporated by reference to this plan. Development of the Early Winters Alpine Winter Sports site has been delayed pending the results of further environmental analysis, which is being prepared due to litigation.

The Forest Plan serves as the single land management plan for the Okanogan National Forest. The Forest Plan supersedes previous land management and resource management plans prepared for the Okanogan National Forest.

Plan Structure

This Forest Plan is organized into five chapters.

- Chapter 1 describes the purpose of the Forest Plan, displays the content of the Forest Plan, describes the planning area, and discusses the Forest Plan's relationship to other documents.
- Chapter 2 summarizes the supply and demand conditions for significant market and non market goods and services associated with the planning area. The focus of the conditions is on those that relate to the Issues, Concerns, and Opportunities (ICOs) that are addressed in this plan. Information and research needs identified during Forest Plan development are presented in Chapter 2.
- Chapter 3 displays how the management plan addresses and responds to major public issues, to management concerns, and to resource opportunities identified during the planning process.
- Chapter 4 presents resource management direction. This includes management goals, objectives, and standards and guidelines that establish resource and project management direction for the next ten to fifteen years covered by this Forest Plan Chapter 4 also displays projected resource outputs.
- Chapter 5 presents additional direction including Implementation Direction, Monitoring and Evaluation Program, and Amendments and Revisions. Collectively, these sections explain how management direction will be implemented, how implementation activities will be monitored and evaluated, and how the plan can be kept current in light of changing conditions or other findings.

Forest Description

The Okanogan National Forest is one of the most scenic areas in Washington State. The rugged North Cascades mountain range forms the western boundary of the forest; lagged, glacier cawed peaks provide a backdrop for sweeping vistas and panoramic views. The Okanogan National Forest, including those portions of the Mt. Baker-Snoqualmie and Wenatchee National Forests administered by the Okanogan National Forest, is located in

North Central Washington, occupying 1,706,200 acres in portions of Okanogan, Skagit, Whatcom, and Chelan counties, with Okanogan County covering most of the Forest (see Figure 1-1)

FIGURE 1 - 1: Okanogan National Forest Vicinity Map

Glaciation has played an important role in shaping the topography of the Okanogan National Forest. Terrain ranges from the steep and rugged ridges and valleys of the North Cascades which were sculpted by alpine glaciation, to the moderate and gentle topography of the Okanogan Highlands caused by continental glaciation. Three river systems drain the majority of the Okanogan National Forest; the Okanogan River and its tributaries are located on the east central portion of the Forest, and the Methow River and its tributaries drain the middle portion of the Forest east of the Cascade Crest, and the land west of the Cascade Crest is drained by tributaries of the Skagit River. Two other systems, the Kettle and Sanpoint Rivers, drain the extreme eastern portions of the Forest.

The majority of the population of Okanogan County lives in the Okanogan and the Methow River valleys The major towns are Omak, Okanogan. Brewster, Pateros, Twisp, Winthrop, Conconully, Tonasket, and Oroville. The highest population densities occur in and around the towns of Omak and Okanogan. Farming, ranching, timber, government, and recreation are the mast important elements in the economy of the area.

Administratively, the Okanogan National Forest is divided into three ranger districts with offices in Winthrop, Twisp, and Tonasket. The North Cascades Smokejumper Base provides support to the Okanogan and other National Forests.

Chapter 2: Summary of the Analysis of the Management Situation

Resource Supply Conditions

This chapter summarizes the management situation at the time these plan decisions were made. It focuses on the supply and demand of the Okanogan National Forest's resources and on identified information needs Its purpose Is to give managers a sense of context about the decisions.

This section includes a summary display of the constrained maximum physical and biological production potentials for Significant individual goods and services (maximum resource level benchmarks) identified in the Analysis of the Management Situation Also included are displays of the production levels that are attainable under current management direction.

The supply benchmarks are:

- Current direction (as defined in existing management plans displayed in

FOREST PLAN, CHAPTER 5)

- Timber
- Present net value
- Range forage
- Roadless recreation
- Roaded natural recreation
- Wildlife habitat
- Minimum level management

Supply Benchmarks

The primary issues which guided the development of the Okanogan National Forest Plan revolved around the management of the recreation, timber, visual, and wildlife resources. 'Benchmarks' were developed in order to help define the decision space available to the Forest within which alternatives could be formulated to address the identified planning issues. The benchmarks were designed to explore the maximum supply potentials for each resource that could be produced while satisfying all of the legal requirements for forest planning. The legal requirements included those pertaining to maximum size and dispersion of harvest units, and those related to the habitat requirements for spotted owls, barred owls, pileated woodpeckers, pine martens, northern three-toed woodpeckers, and primary cavity nesters. An analysis of these management requirements is disclosed in the final EIS, APPENDIX K.

Table 2-1 displays the outputs and effects associated with the various resource supply benchmarks. It also highlights the recreation, timber, visual, and wildlife output levels for each of the resource maximization benchmarks. From this, an idea of the magnitude of complimentary and competitive relationships that exist between the production of these key resources can be obtained.

Current direction is a compilation of direction from approved management plans, continuation of existing policies, standards, and guidelines; current budget updated for changing costs over time, and, to the extent possible, production of current levels and mixes of resource outputs.

TABLE 2-1: Summary of Project Supply of Key Variables

Outputs & Effects (units of measure[1])	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Deer Winter Range - Snow Intercept/Thermal Cover Percentage					
Current direction	17	17	17	19	18
Maximum Wildlife Benchmark	18	18	18	18	18
Forest Plan	17	17	17	18	18
Old growth/Mixed Conifer - Forstwide (1000 acres)					

Current direction	114	104	97	97	97
Maximum Wildlife Benchmark	126	126	126	126	125
Forest Plan	216	126	125	124	124
Allowable Sale Quantity (MMCF/Year)					
Current direction	15.0	12.1	10.5	10.5	10.5
Maximum Wildlife Benchmark	21.5	21.5	21.5	21.5	21.5
Forest Plan	12.3	12.3	12.3	12.3	12.3
Accelerated Sediment (1000 Tons/Decade)					
Current direction	14.7	219.3	176.3	188.5	212.1
Maximum Wildlife Benchmark	352.8	441.0	248.1	312.2	341.3
Forest Plan	145.6	192.7	193.9	171.9	159.5
Payments to Counties (Million $/Year)					
Current direction	1.1	1.0	0.9	0.8	0.8
Maximum Wildlife Benchmark	1.5	1.5	1.5	1.5	
Forest Plan	145.6	1.0	0.8	0.8	0.8
Range (Forage Production) (1000 AUMs/Year)					
Current direction	55.6	59.4	57.0	56.8	56.5
Maximum Wildlife Benchmark	86.0	90.4	94.2	97.8	99.4
Forest Plan	53.2	57.1	56.7	55.9	55.6

1 Average Annual Units

Resource Demand Projections

This section is a summary of projected demands for the significant variables addressed in the Analysis of the Management Situation. Both supply and demands conditions are displayed for each RPA planning period.

TABLE 2 - 2: Summary of Projected Supply and Anticipated Demand

Outputs and Effects (Units of Measure[1])	All Five Decades
Unroaded Areas (1000 Acres)	
Current Direction	149
Maximum Wildlife Benchmark	448
Forest Plan	202
Visual Quality Objectives (1000 Acres) Retention VQO	
Current Direction	298
Maximum Wildlife Benchmark	619

Forest Plan	332
Visual Quality Objectives (1000 Acres) Partial Retention VQO	
Current Direction	289
Maximum Wildlife Benchmark	307
Forest Plan	53
Long-Term Sustained Yield (MMCF/Year)	
Current Direction	16.6
Maximum Wildlife Benchmark	24.0
Forest Plan	18.5
Lands Suitable for Timber Production (1000 Acres)	
Current Direction	303.3
Maximum Wildlife Benchmark	310.6
Forest Plan	284.0
Present Net Value (Million $/Year)	
Current Direction	
Maximum Wildlife Benchmark	
Forest Plan	

1 Average Annual Units

Outputs & Effects (units of measure)	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Developed Recreation Capacity (1000 RVDs)					
Current Direction	622	876	925	980	1042
Maximum Roaded Recreation Benchmark	622	876	925	980	1042
Anticipated Demand	641	855	934	1000	1054
Non-Wilderness Dispersed Recreation Capacity (1000 RVDs) includes (WFUDs)					
Roaded					
Current Direction	450	545	669	748	802
Maximum Timber Benchmark	416	533	613	693	784
Anticipated Demand	424	496	550	580	630
Unroaded					
Current Direction	129	155	162	167	174
Maximum Timber Unroaded Benchmark	179	238	298	358	420
Anticipated Demand	128	142	157	175	195
Wilderness Capacity (1000 RVDs)					
Current Direction	405	405	405	405	405
Maximum Roaded Recreation Benchmark	405	405	405	405	405
Anticipated Demand	110	145	165	185	203
Range – Permitted Grazing (1000 AUMs)					
Current Direction	56	59	57	57	57
Maximum Roaded Recreation Benchmark	86	90	92	97	100
Anticipated Demand[1]	50	NA[2]	NA	NA	NA
Allowable Sale Quantity(MMCF)					
Current Direction	15.0	12.1	10.5	10.5	10.5

Maximum Roaded Recreation Benchmark Anticipated Demand[3]	21.5 25.9	21.5 26.7	21.5 NA	21.5 NA	21.5 NA

[1] Actual use, 1980s average.

[2] Not available.

[3] From Hutchins (1981). a) Disaggregated from Haynes, Connaughton and Adams (1980), and converted to MMCF using board foot to cubic foot conversion ratio of 4.95 from Table G-1, regional Guide for the Pacific Northwest Region.

Major issues and concerns are also discussed, with reference made to RPA targets where appropriate. These issues and concerns include more variables than just those for which meaningful demand projections have been made.

Timber

Of the eight benchmarks, the maximum first decade timber volume offered for sale is 104 5 MMBF/year (21 5 MMCF/year). This is somewhat less than estimated demand. By the year 2000, demand could be expected to exceed this supply by an even greater margin. The timber benchmark equals the 1980 RPA target.

Range

Forage consumption by domestic animals (AUMs) is not a direct decision of this planning effort, but the ability to provide forage is a consequence of these decisions. The range in values is from zero, f existing contracts are not renewed, to 86,000 AUMs under intensive, multipurpose management. The 1980 RPA targets can be met, but not while maximizing other resource values. Current consumption levels can be met.

Roadless Areas

The Okanogan National Forest has 14 roadless areas totaling 448,000 acres. 71,000 of these acres are in the North Cascades Scenic Highway. Theoretically, all 448,000 acres could be developed, but economic considerations alone would leave almost 60,000 acres undeveloped during the next five decades.

Old Growth Habitat

The current inventory for mixed conifer old growth is approximately 126,000 acres Designated wilderness contains 77,000 acres. Of the remaining 49,000 acres, 15,ooO are required to meet MR direction and 12,000 are in the North Cascades Scenic Highway. The remaining 14,900 acres will be retained to meet aesthetic and ecosystem diversity needs. In about 50 years, five percent of the existing mature mixed conifer forest could be expected to become old growth, d retained, and a similar addition would be expected each decade thereafter. Also, old growth habitat may be able to be created from young stands through silviculture (this concept does not have the total support of all scientists), but the results would not be available for at least 180 years. Therefore, the best that can be expected in the RPA planning horizon is to protect what is present today, but over the

long run more can be accomplished.

Deer

The quality of deer winter range on the Forest, particularly on the Okanogan Highlands, is dependent on amounts of thermal and snow intercept thermal cover. As is the case with old growth, the range of possible alternatives is small. At the end of the first decade the range is only 6 percent and optimal amounts cannot be reached even with minimum level management

Roaded Recreation and Visual Resource

The majority of the mast visually significant areas on the Okanogan are protected by legislation, including 626,200 acres of preservation in the Lake Chelan/Sawtooth and Pasayten Wildernesses and 88,000 acres in the North Cascades Scenic Highway. Outside classified areas, 21 2,000 acres have an inventoried visual quality level of retention and 31 0,600 acres have an inventoried visual quality level of partial retention Of these acres, 11 6,000 acres of retention and 155,000 acres of partial retention are suitable for timber management. The remaining acreage is unsuitable for timber management.

Present Net Value

The Maximum Present Net Value Benchmark has the highest PNV. Of interest is how the other benchmarks rank relative to that benchmark and to each other.

The highest resource benchmark in terms of PNV is roaded recreation, followed by unroaded recreation, wildlife and current direction. Timber and range benchmarks are further down the scale and minimum level management has the lowest calculated PNV. These relative rankings are explained by:

- The value of recreation use and wildlife/fish use on the Okanogan National Forest relative to the values of Okanogan commodity use
- On a per acre basis, the higher value of roaded recreation use than primitive and semiprimtive use in visually significant areas
- The higher value of mixed conifer stands relative to lodgepole pine stands, and
- The costs of roading and logging, especially on some sites where those costs exceed the commercial values of the lands.

Information Needs

The remainder of this chapter is devoted to listing research needs and inventory and data needs

Program

Timber

Develop local yield studies for principal timber species growing in managed conditions Yield studies should be specific to productivity class. Incorporate results into timber yield simulators and published yield tables.

Develop quantitative estimates of the short-term and long-term impact of animal damage, insects, and disease upon growth and yield of forest timber stands. Incorporate results into timber yield simulators.

Develop cost effective techniques for reforesting steep terrain where growth environments are severe, and where competing vegetation exists.

Better describe the interactions of site factors such as temperature, available moisture, energy budgets, presence or absence of organic matter in the soil profile, and the germination and growth requirements of commercially important local confer species.

Quantify the recovery rate of natural vegetation following disturbance. Determine the invasion or establishment rates of competing vegetation following harvest of timber stands under various silvicultural systems likely to be used.

Develop ecology based criteria to identify sites where artificial methods (planting) are necessary to reforest within a reasonable period following harvesting.

Develop silvicultural methods to regenerate timber sites where year-long or seasonal high water tables occur following timber harvest.

Determine biomass retention needs based upon plant association. Research should identify the level and kind of residue material to be left on-site following timber management or other vegetation manipulation activities to provide for nutrient cycling, microsite amelioration for confer establishment, and for non-game wildlife habitat needs.

Define the physiological and ecological interactions of noxious weeds, exotic seeded grasses, native grasses and shrubs, and commercially valuable conifer species.

Develop study sites to evaluate short and long term effects of residue treatments or productivity, ecological succession, and wildlife habitats.

Develop market area strategy for small diameter material Explore alternatives for utilization including biomass for energy production, small product, wood chipping, etc.

Define market area, identify barriers to effective use of forest resources (e.g., transportation, manufacturing facilities, labor pool, capital availability, etc.) and identify possible solutions.

Develop geographically specific model to predict the incidence of insects and diseases in stands of commercially valuable conifer species.

Develop locally applicable fertilization studies. Identify specific species and plant association/soil series complexes that will respond predictably to fertilization in an economically attractive manner.

Develop strategies for the use of livestock grazing as a vegetation management tool that might accomplish site preparation for conifer regeneration, or promote growth on established conifer saplings and poles.

Develop data base (inventory) and analysis techniques to identify specific sites that are uneconomical to manage for timber production given the anticipated variation in production costs and price.

Develop a Forest inventory based upon all forested lands. Sample suitable and unsuitable lands. identify and inventory lands by productive potential and other important characteristics.

Soil and Water

Develop thresholds of sediment production for cumulative effects on the soil and water resource considering the values of the water from the watershed.

Update the current Soil Resource Inventory. The mapping units should more fully integrate the natural features of the landscape that affect management decisions and resource allocations.

Develop soil compaction change standards that maintain current soil productivity. Information should also be developed for compaction influences on vegetative growth when soil compaction is greater than the soil compaction change standards.

Determine ground water changes (recharge and discharge) following timber removal.

Wildlife

Determine what the effects of stand modification are on spotted owl reproduction and juvenile survival and how much, if any, stand modification can be tolerated and still support spotted owls.

Define the range and habitat requirements of grizzly bears on the Okanogan National Forest.

Continue to refine the relationships between snow-intercept/thermal cover on deer winter range and deer survival.

Continue to conduct surveys of mountain goat winter range, of population dynamics on

the Forest, and determine the lilting factors for population maintenance.

Conduct more research to determine the amount of habitat required by cavity nesters and more specifically, the number of snags, future snags, or clumps required to support a given population level of cavity dependent species.

Complete the inventory of mixed conifer old growth. Review wildlife habitats on the Forest to determine if additional management indicator species are required to adequately represent those habitats and associated wildlife species.

Conduct studies to develop methods of improving snowshoe hare habitat in the Meadows complex. Examine the use of uneven-aged timber management for maintenance of snow-intercept thermal cover on deer winter range.

A Recovery Plan for gray wolves.

Determine the status and occurrence of the gray wolf on the Forest.

Determine the status of peregrine falcon reproduction on the Forest; and identify potential nest sites.

Determine the structure, stem density, and components that comprise old growth on the east side of the Cascades.

Develop methods to accurately assess the recreation use attributable to wildlife, other than hunting, on the Forest.

Conduct a thorough inventory for bald eagle nesting territories on the Forest; identify at least one potential nest site, if no active nests are identified, and complete a site management plan.

Survey riparian areas and classify according to condition and priority for vegetative management, protection or rehabilitation for implementing habitat improvements, timber management, and grazing.

Define the relationship of lodgepole pine management to lynx populations. Contribute to recent efforts by Washington State Department of Wildlife to monitor lynx activity in generally unmanaged stands, which have provided a basis from which to continue research both during and after proposed large scale lodgepole pine management. The situation is a unique opportunity in the lower 48 states

Fisheries

Obtain information on macro-invertebrate community composition in aquatic habitats on the Forest.

Obtain information on sediment levels and overall substrate composition on the Forest,

including surface fines, cobble embedded ness, and depth fines.

Collect information on stream channel morphology including in-channel, large wood, pool frequency and quality, habitat composition, and bank stability.
inventory riparian areas for their ability to provide a long-term supply of large wood to stream channels.

Obtain better information on distribution and numbers of resident fish species on the Forest.

Determine which streams are being used by steelhead for spawning and rearing

Refine smelt habitat capability numbers for spring Chinook salmon and steelhead in Forest streams.

Identify opportunities for habitat improvement.

Determine fisherman use levels on streams and lakes.

Determine If redband trout are present on the Forest.

Recreation

Determine customer expectations for special places and Recreation Opportunity Spectrum settings in relationship to user access, non-recreation uses, on-site management, visitor management, social encounters, and visitor impacts.

Refine recreation carrying capacity figures for recreation opportunities outside developed sites.

Cultural Resources

Determine species and location of native plants used for food, medicine, and religious purposes by Native American Tribes.

Wilderness

Refine wilderness carrying capacity figures.

Define the base level condition for Air Quality Related Values within the Pasayten Wilderness

Determine the social impacts of using llamas and burros.

Range

Determine if grazing in sensitive sites in wilderness areas is changing current vegetation

or lowering range trend.

Noxious Weeds

Develop control strategies for containing noxious weed incursions on the Forest, and for reducing noxious weed populations where established.

Identify plant associations highly susceptible to noxious weed invasion

Minerals

Develop improved minerals inventory information, especially for areas which will or may be recommended for withdrawal.

RNA

Determine If sensitive plants in the Hart's Pass area are enhanced or are reduced by livestock grazing.

Continue to investigate for the presence of ecological cells which may be present on the Forest and not represented in the RNA program.

Chapter 3: Response to Issues and Concerns

This chapter of the Forest Plan shows how the management plan addresses and responds to major public issues and management concerns identified during the planning process.

Soil, Water, and Air

How will ecosystems and environmental quality be protected?

Background

Road building, timber harvest, and grazing displace soil and affect water quality Some soil types are susceptible to erosion or mass failure, and others can be compacted through tractor logging. Yarding logs can affect the amount of suspended sediment in a stream. Domestic livestock can affect riparian ecosystem quality and streambank stability.

Water quality and quantity is a local concern. North Central Washington has been in a drought for several years and water supplies available in some years have not always been available during the drought. The water source for some local residents is the Okanogan National Forest.

Local loss of visibility by burning wood wastes from logging operations and firewood burning are the principal reason for reductions in air quality. Smoke management requirements attempt to restrict burning to weather conditions favorable for dispersal of smoke into the upper atmosphere and away from population centers or other smoke-

sensitive areas. Most air quality problems are from sources off forest Nationwide and worldwide the public is concerned with the greenhouse effect and global warming.

Response

Implementation of the FOREST PLAN will result in approximately 5,300 tons of Total Suspended Particulates (TSP) produced from the prescribed burning of logging slash and 146 thousand tons per decade of accelerated sediment yield produced from timber harvest. These factors combined are principally responsible for changes in ecosystem and environmental quality. Trade 0% between resource production and environmental quality will be reduced through mitigation measures associated with individual timber sale plan implementation. Overall ecosystem and environmental quality will be protected through Federal, State, and local laws and Forest Plan standards and guidelines.

How will riparian areas be protected?

Background

Riparian areas (wetlands, lakes and streams and their immediate areas of influence) are important habitat for wildlife, for contributions to forest diversity, and for recreation use. They are highly productive vegetation areas and are very important for aesthetic values. The importance of riparian areas is recognized in the NFMA implementing regulations 36 CFR 21 9.27(e). The Forest Service is directed to give special attention to the land and vegetation approximately 100 feet from the edges of all perennial streams, lakes, and other waterbodies, and to an area dominated by riparian vegetation if larger.

Disturbing these areas can affect riparian value and use.

Creating buffers or no-cut areas around and along riparian areas can cause problems for current management and management of adjacent areas. Requirements to protect streams can increase management costs.

Response

The emphasis will be placed on managing the riparian ecosystem to maintain or to enhance the existing conditions. While some timber removal and livestock use will be allowed in the riparian areas, ecosystem Values will be emphasized. Water and soil values will be maintained in the riparian zone.

Mineral Development

What mineral resource activities will be encouraged?

Background

The Forest Service views minerals area management in three distinct phases: exploration,

development, and production.

Most of the public issues associated with the minerals resource deal with development. Development requires a site-specific analysis and will not be addressed in this programmatic final EIS. All minerals proposals, whether exploration or development, will be subject to separate, site-specific environmental analysis.

Permitting access is the most important way the Forest can provide opportunities for mineral exploration. The greater the amount of roaded area, the easier the exploration process.

Since the time the draft EIS was filed with the Environmental Protection Agency, a 1,500 to 2,000 tons per day gold mining and processing facility has been proposed, and construction started, in the Republic area.

Some residents of the planning area are concerned with radon possibly escaping into the atmosphere from drill holes and excavations and becoming a health threat.

Response

The Forest Plan provides improved minerals accessibility relative to current direction, mainly due to a greater allocation of high and medium-high minerals areas to less restrictive prescriptions. Approximately 10,210 acres in three proposed RNAs would be recommended for withdrawal from mineral entry. Under this proposal 38 percent of the Forest would be withdrawn, 8 percent would be included in prescriptions having high access restrictions, 24 percent with moderate, and 30 percent with low access restrictions.

Fire

How will fire be managed?

Background

Past Forest Service fire management policy directed that forest fires be attacked with sufficient forces to gain control of all fires as quickly as possible. Each wildfire was suppressed regardless of vegetation type, burning conditions, fuels, or land management objectives. To ensure that resources were available to implement this policy, costly expenditures were required on each National Forest for staffing, equipment, and aircraft support. This resulted in situations where fire suppression costs many times exceeded overall resource losses. This imbalance in the costs to benefits for fire protection, coupled with new knowledge gained about the role of wildfire and prescribed fire within forest and range ecosystems, prompted the Forest Service to revise its overall fire management objective in 1978.

Current fire management policy directs each National Forest to develop and implement fire protection and fire use programs that are cost effective and responsive to land and resource management goals and objectives. The protection of the public, capital

investments located on the Forest, and private land within and adjacent to the Forest carries the highest priority when using suppression resources. Wilderness and unroaded recreation areas have the lowest priority for fire protection because of the role of wildfire in shaping the natural ecosystem within these areas. The suppression response to each wildfire in wilderness and unroaded recreation areas is dealt with on a case-by-case basis Confinement of fires is a common practice.

Response

The Forest Plan establishes levels of fire protection (i.e., wildfire suppression) based on resource values protected, potential suppression cost, threat to the public, and capital investments, and the positive and negative effects of wildfires on the resource management objectives of each management area.

The Forest Plan allows the use of a confinement suppression strategy for lightning fires to burn under a confinement strategy within the Forest's wilderness and semiprimtive recreation management areas. Wild- fires will be allowed to burn under the confinement fire strategy within the majority of the semiprimtive recreation acres (Tiffany, Mt. Bonaparte, Liberty Bell, and Sawtooth Roadless Areas), North Cascades Scenic Highway, and mountain goat habitat management areas. However, If any confinement fire within these management areas poses a threat to capital investments, significant cultural resources, or has the potential to leave the area, the wildfire will be contained or controlled. A cost analysis based on current and expected weather, fire behavior, and available resources must show confinement to be the most cost effective suppression strategy prior to using the confinement strategy.

Containment will be the primary suppression strategy for the acres allocated to a range management emphasis with no timber harvest. All wildfires on the remainder of the Forest's acres will be contained or controlled to minimize potential resource loss evaluated against the expected cost of suppression. The Forest Plan allows for the use of prescribed fire in support of timber, range, hazard reduction, and wildlife management activities.

Road and Access

How will the Okanogan National Forest roads be managed and access to the Forest be provided?

Background

In the past, National Forest System roads have been constructed to standards that accommodate highway vehicles. Because most roads now constructed on the Okanogan National Forest are intended to access timber, roads could be constructed to accommodate only high-clearance vehicles. This reduces timber management costs. If roads are obliterated and the site rehabilitated or the road corridor barricaded following timber management activities, future savings in road operations and maintenance costs could be realized. These actions limit the amount of roaded access provided to the

general public. Higher road standards in the past have led public land users to expect to be able to use new roads. Limiting access now and in the future means that new roads will not be available for motorized access for woodcutting and other recreational activities. Not limiting motorized access in the future will mean that operational costs and wildlife habitat degradation will increase.

Response

The National Forest transportation system is planned, constructed, and managed to facilitate planned Okanogan National Forest land and resource management objectives. The road standard is a direct result of the objectives the road is intended to serve. The cost of construction and maintenance is a direct result of the road standard and operation. For example, a road constructed for only logging vehicles will typically be narrow, closely follow the topography (numerous sharp curves and abrupt changes in grade) and have a rough surface. This road will cost a minimum to construct and will cost a minimum to maintain, If used only during suitable weather and blocked after logging use.

Any additional objectives that require use by more and different vehicles, or extend the time of use will significantly increase road construction and maintenance costs. For example, If the road will also be used for firewood gathering after the timber sale, the road will be used for a longer period of time, and maintenance costs will increase. If the road is to be used concurrently by logging vehicles and recreationists, the road standard will increase (smoother surface, wider road, and straighter horizontal and vertical alignment) and road construction and maintenance costs will significantly increase.

The Forest Service classifies roads in one of the following three categories:

- Arterials - Roads forming a link between towns or serving a major drainage or other major traffic generator. The Middle Salmon - Boulder Road No. 37 over Baldy Pass is one example.
- Collectors - Roads usually tributary to arterials. There may or may not be connecting routes. The Eightmile Road, No. 5130, from the Chewuch Road, No. 51 (an arterial), to Billy Goat Corral is a collector.
- Local - Usually short, dead-end roads that serve a limited number of resources.

The Forest has approximately 508 miles of arterial and collector roads. Most arterial and collector roads are managed for general public use except for restrictions of short duration for heavy commercial haul. Approximately 1,638 miles of local roads are present, 504 miles of these are blocked, 654 miles are for high clearance vehicle use and 480 miles are for highway vehicle use. Local roads are subject to seasonal use restrictions for wildlife habitat protection, use conflicts between recreationists, and use conflicts between recreationists and commercial hauling Newly constructed local roads will generally be for high clearance vehicle use only. An average of 33 miles of local road will be constructed per year with most newly constructed road available for public use at least seasonally for a period of approximately two years. Essentially all needed arterials and collectors are in place, but many are not to a suitable standard to meet management area objectives. The arterials and collectors not to standard will require reconstruction.

Wilderness

How will designated wilderness be managed?

Background

Wilderness is a legislative designation under the authority of Congress The Wilderness Act of 1964 is very restrictive. The act identifies activities that can and cannot occur in designated wilderness. However, decisions can still be made regarding such topics as fire management, recreation use, grazing levels, administrative cabins. and dams.

Fire has played a major role in shaping the ecosystems In the Pasayten and Lake Chelan/Sawtooth Wildernesses. Fire suppression cost and damage from suppression actions on the wilderness character have prompted use of a confinement fire suppression strategy in these wilderness areas. In the confinement strategy certain wildfires may burn out naturally within natural breaks and barriers. Fires that threaten capital investments, significant cultural resources, or threaten to leave the wilderness are contained or controlled.

Recreation use has increased in recent years, particularly along major trail routes, and is expected to continue to increase. The question arises: How much use should occur before access to the wilderness is limited?

Conflicts arise because some people feel the wilderness experience should not include livestock grazing Although the Wilderness Act allows livestock grazing to continue in areas that were grazed at the time of wilderness designation, grazing levels are to be determined by forest managers.

Although the Wilderness Act allows dam construction, such construction requires Presidential approval. Some people commented this is no guarantee that dams will not be constructed and are seeking Wild and Scenic River designation for the Pasayten River (the entire United States portion of this river is located in the Pasayten Wilderness), and those portions of the Chewuch, Twisp, and Lost Rivers, and Wolf Creek in the Pasayten or Lake Chelan/Sawtooth Wildernesses.

Response

The Forest Plan will manage both the Pasayten and Lake Chelan/Sawtooth Wildernesses to preserve solitude and natural ecosystems. The guiding principal in management of Wilderness will be 'Limits of Acceptable Change'. Much of the Pasayten Wilderness west of the Pacific Crest National Scenic Trail, in addition to those portions of the Pasayten in the vicinity of Lost River and Eureka Creek and that portion of the Lake Chelan/ Sawtooth Wilderness between Twisp Pass and South Creek will be managed in a trail-less condition, with large areas accessible only by rigorous cross-country travel. The remaining portions of both Wildernesses will be managed to provide trail access to many areas, although trails access will not be provided in all drainages which currently have no trails. Where trails are provided, they will tend to be more primitive than trails outside

wilderness. New trailheads will not be constructed If they will increase visitor use or distribute visitors into areas that currently receive light use.

Those eligible and suitable portions of the Pasayten, Chewuch, and Lost Rivers within the Pasayten Wilder- ness and those eligible and suitable portions of the Twisp River and Wolf Creek within the Lake Chelan/ Sawtooth Wilderness will be recommended for designation as components of the Wild and Scenic Rivers System.

Fish and wildlife indigenous to the wilderness will be maintained, with emphasis on Threatened and Endangered species.

Grazing of domestic livestock will continue in areas currently grazed. Congressional Guidelines regarding grazing in National Forest Wilderness will be applied in a practical and reasonable manner. Stocking levels will be consistent with individual Allotment Management Plans as determined by wilderness objectives.

Structures and improvements not essential to wilderness protection or administration will be phased out.

Human-caused fires will be controlled. The preferred suppression strategy for lightning-caused fires will be confinement, unless they threaten significant cultural resources or capital investments, threaten to cross the United States-Canadian Border, threaten management areas with more restrictive fire management direction, or will result in unacceptable off-.site impacts. In any of these cases, fires will be contained or controlled. Prescribed fire using planned ignitions will not be used. Prescribed fire ignited by lightning may be used to meet wilderness fire management objectives, subject to completion of a prescribed fire plan. Wilderness suppression guidelines, which emphasize a light hand on the land, will be used whenever containment or control action is taken.

Roadless Areas

How will the Okanogan National Forest manage roadless areas?

Background

The Okanogan National Forest contains 14 roadless areas totaling approximately 448,000 acres. The interest in roadless area management includes several facets.

Roadless area management and recreation opportunities are different from wilderness experiences. Wilde ness is a designation by Congress and subject to the provisions of the 1964 Wilderness Act and Its amendments. Actions prohibited or permitted in wilderness may be treated differently in an administratively managed roadless area.

Existing roadless areas are the most likely source of any future wilderness designation. The Washington State Wilderness Act of 1987 and the implementing regulations for NFMA preclude wilderness recommendations during this planning effort. These areas,

and any other qualifying areas, may be considered for wilderness designation at the scheduled revision of the Okanogan National Forest Plan.

Existing roadless areas contain a large supply of natural resources. Decisions on how these resources are to be managed will likely affect the entire Okanogan National Forest in the future. For example, extensive areas of lodgepole pine are present in some of the roadless areas. The local lumber mills are installing facilities capable of processing the smaller lodgepole pine.

Roadless areas have not been contributing a proportionate level of timber volume to the Okanogan National Forest's annual harvest goal, even though suitable roadless area acres were included to determine that goal. This has placed a greater burden on the easier to access areas to provide the remaining volume, further affecting other resources.

These areas also provide a variety of recreation opportunities, wildlife habitat, and large supplies of water. Maintaining large blocks of roadless areas tend to discourage mining activities within those areas, because access is more difficult. This is also seen as beneficial by some.

Response

The Forest Plan will manage the 14 inventoried Roadless Areas to help meet the demand for a variety of goods and services.

Semiprimitwe Non-motorized recreation Opportunities will be provided during summer and fall seasons in portions of the Tiffany, Pasayten Rim, Liberty Bell, and Sawtooth areas. Semiprimitive Motorized recreation opportunities may be provided during winter and spring seasons in these areas, but may be restricted to designated routes or areas. Semiprimitive Motorized recreation opportunities will be provided year-round on portions of Bodie Mountain, Mt Bonaparte, and Sawtooth areas. No scheduled timber harvest will occur in these areas.

Roaded Natural recreation opportunities will be provided in those portions of the Clackamas Mountain, Granite Mountain, Long Draw, Long Swamp, Pasayten Rim, Liberty Bell, and Sawtooth areas viewed from heavily used travel routes. Timber harvest levels will be reduced in these areas.

Research Natural Area establishment will be recommended for portions of the Clackamas Mountain and Long Swamp areas. A Botanical Area will be established in the Tiffany area.

Habitat for a variety of wildlife species will be provided in all areas. Emphasis will be on providing deer winter range and a diversity of wildlife habitat in the Jackson Creek, Bodie Mountain, Clackamas Mountain, Hungry Ridge, Black Canyon, South Ridge, and Sawtooth areas. Lynx habitat opportunities will receive emphasis in the Granite Mountain, Tiffany, Long Draw, and Long Swamp areas. Mountain goat habitat will be provided in the Pasayten Rim, Liberty Bell, and Sawtooth areas.

TABLE 3 -1 : Management Emphasis by Roadless Area.

Area	Management Emphasis	
	Unroaded	Roaded
Jackson Creek	0	7.4
Bodie Mountain	3.8	0
Clackamas Mountain	1.4	11.9
Hungry Ridge	0	11.4
Black Canyon	0	11.9
South Ridge	0	5.5
Granite Mountain	0	28.9
Tiffany	15.9	8.1
Mt. Bonaparte	5.2	5.6
Long Draw	0.	4.7
Long Swamp	7.5	62.7
Pasayten Rim	13.6	1.8
Liberty Bell	112.4	0
Sawtooth	72.4	56.3
Total	232.2	216.2

Timber Management

What is the appropriate timber harvest level?

Background

The Okanogan National Forest is operating under a 1969 Timber Management Plan. There are opposing views on whether the quantity of timber specified in that plan is reasonable or adequate considering the biological capability of the Okanogan National Forest and in light of today's marketplace.

One group of forest users perceives the 1969 Timber Management Plan harvest level as too high. The 1969 Plan was challenged in 1988. In both administrative and judicial proceedings members of the public have stated the Okanogan is overcutting. The issue went to federal district court in April1989. In denying a motion for preliminary injunction a federal judge stated he did not have adequate information upon which to grant a motion for preliminary injunction.

Another group believes the 1969 Timber Management Plan harvest level is too low. As cooperators in submitting a new alternative to be analyzed in the final EIS, local industry and the Northwest Forestry Association have proposed the Okanogan National Forest be managed to supply 90.6 MMBF (17.4 MMCF) annually in decade 1. This alterative has an average annual long-term sustained yield capacity of 20.8 MMCF.

Omak Wood Products, the historic major Okanogan National Forest timber buyer, was purchased by the local employees through an Employee Stock Ownership Program. This has increased local interest in the timber harvest issue.

The needs of other resources will influence the timber supply from the Okanogan National Forest. Again there are opposing views regarding how much timber should be harvested and/or retained for other resource needs and how compatible timber management is with management of other resources. The evidence available to the Forest Service indicates retaining cover in deer winter range, snags for wildlife, big trees for scenic vistas, or opening timber stands for range forage all affect timber yields.

Management for high timber yields in the short and long term will cause reductions in some forms of wildlife habitat (for example, cover in deer winter range or snags), or reduce the scenic values of some parts of the forest.

The wood products industry is an important part of the Okanogan County economy. In 1988 approximately 20 percent of the wages paid were related to forest products. High harvest levels will provide employment in logging, manufacturing, and related occupations. Large increases or decreases in timber offered for sale from the Okanogan National Forest could be expected to directly and indirectly affect the number of jobs generated in Okanogan County.

Some people have expressed concerns that timber management and site preparation may contribute to the greenhouse effect and global warming, and may affect ground water yield.

Response

The Forest Plan will harvest approximately 633 MMBF (123 MMCF) of chargeable sawtimber during the next decade (average of 63.3 million board feet per year). An estimated 12.5 million board feet of non-chargeable chippable material, posts, poles, firewood, and other miscellaneous products may be sold in addition to chargeable sawtimber, depending upon local demand. The volume of chargeable sawtimber IS 27 percent less than the level specified within the 1969 Timber Management Plan. The 1969 Timber Management Plan made no estimate of non-chargeable forest products. The harvest level was determined with consideration for areas of high scenic value where large trees would be retained, and the need to provide habitat to various forest dwelling wildlife species. The Okanogan National Forest has practices and policies in-place that will maintain diversity. Diversity is believed to buffer natural systems against changes in the environment.

How will wood waste be utilized?

Background

Timber harvest, mad construction, and thinning unwanted trees produce waste. Most of this material is in the form of branches, tree tops, and broken tree trunks.

The waste material that remains on the site may be afire hazard, may impede successful regeneration of new trees on the site, or may create a barrier to liiestock and deer movements.

The Forest Service is researching how wood waste contributes to nutrient recycling, habitat for small mammals, and shade for seedling survival on harsher growing sites.

Wood waste that remains on-site following activities is popular for firewood cutting. Large diameter standing snags and windfall outside timber sale areas are also popular for firewood cutting. Increasing public demand for firewood is reducing the number of standing snags and down logs required for maintenance of certain wildlife habitats, especially where closely spaced roads provide ready access to the firewood cutter.

Response

Wood waste from timber harvest will be made available to the public for fuelwood cutting. Firewood will only be provided where scenic quality and wildlife habitat management objectives can be met. Accessibility of the firewood to the public will be the greatest during the first decade, because the majority of the harvest activities will occur on gentle terrain. Total availability will decline in future decades because logging will increasingly occur on steep ground that is less accessible to woodcutters. Increasing use of wood waste by industry for wood chips and other products will further lessen future firewood gathering opportunities on the Forest.

Which silvicultural treatments will be used?

Background

Silvicultural treatment influences scenic quality. Uneven-aged management maintains forest cover reducing the visual impact of timber management. Even-aged management such as clearcutting and shelterwood cutting results in the removal of most understory vegetation Clearcutting removes all trees, while shelterwood cutting retains mature trees on site for a period of time until new trees become established. The mature trees are then removed.

The types of silvicultural treatments applied can directly affect costs and timber yields. Uneven-aged management may be more costly than even-aged management because remaining trees must be protected. In most cases more volume per acre is harvested under even-aged management than under uneven-aged management at each entry. Over time similar volumes are produced from healthy stands with both methods However, where Serious insect or disease problems exist, uneven-aged management produces less volume than does even-aged management.

The presence of insects or diseases may be affected by the silvicultural treatments. Treatments that create timber stands containing trees of many ages and sizes produce favorable conditions for the spread of many forest insects and disease. Research supports

even-aged management as a means of managing insect and disease conditions at endemic levels. Uneven-aged management techniques tend to perpetuate and exacerbate dwarf mistletoes, root diseases, and defoliator insects.

Silvicultural treatment may affect long-term soil productivity. Treatments that require frequent re-entry often result in greater damage to forest soils

Response

Even-aged or uneven-aged methods will be selected following site specific analysis in the Muted Conifer and Low Productive Working Groups. Even-aged management will be practiced in Lodgepole Pine Working Groups. Specific treatments will be selected that will best meet the resource management objectives for each management area.

Which logging methods will be used?

Background

The logging methods chosen influence costs and resource damage on a see. Cable and helicopter logging can eliminate potential soil compaction or impacts on steep slopes, because logs can be fully or partially suspended above the ground.

Horse logging can also mitigate impacts on gentle ground because horses weigh a great deal less than tractors (the usual logging system on gentle ground). However, costs increase greatly with any of these systems as compared with tractor logging. Horse logging has emerged as a strong, local public desire in same areas in Okanogan County.

There is also a correlation between logging system and access. If roads cannot be constructed or are too expensive to construct, a site may only be accessible by helicopter or long span skyline systems. This in turn increases reforestation and precommercial thinning costs, and decreases long-term yields.

Helicopter and horse yarding systems tend to cause less site disturbance and allow the retention of ground vegetation, which makes the site more visually pleasing following logging. However, following logging it is often necessary to remove much of the ground vegetation in order to reforest the site.

Response

Logging methods will be selected based upon site specific interdisciplinary analysis of resource conditions during project level planning. The logging system selected must be the most cost effective method of removing logs from the woods that will protect inherent productivity and meet management objectives for the stand. All logging systems, including tractors, horses, cable (skyline and highlead), and helicopter systems will be used where necessary and appropriate.

How will lodgepole pine stands be managed?

Background

About 90,000 acres of the Okanogan National Forest outside of wilderness (approximately 10 percent of the total non-wilderness lands) are in dense, mature lodgepole pine stands. The Okanogan National Forest has entered the initial stages of a mountain pine beetle outbreak If left to run its course, most of the mature lodgepole pine will be killed within the next 10 to 20 years. One result of this outbreak will be large volume losses in mature lodgepole pine stands. Another will be a significant increase in fuel accumulation and a greater risk of wildfire.

The large lodgepole pine stands are mainly located in roadless areas. The largest lodgepole pine areas in the Forest are also habitat for what has been reported to be the largest concentration of lynx over the largest single area in the 48 contiguous states (smell, 1984). The lynx population in the area IS very low, estimated to be between 20 and 25 animals outside of wilderness. Recruitment to the population is also low (Koehler, 1988). Snowshoe hare, the primary prey of lynx, depend on early seral stages of lodgepole pine. The majority of existing lodgepole pine is now mature A major outbreak of insects or fire could produce a boom or bust situation, where the lynx would have increased habitat (young lodgepole pine stands), but other species relying on later successional stages (mature) would be displaced. Later, when the trees matured, the lynx and snowshoe hare could decline.

Harvesting selected lodgepole pine stands now may reduce the impact of the insect outbreak. Creating a mosaic of successional stages throughout the lodgepole pine stands using prescribed fire or timber harvesting would benefit wildlife, especially the snowshoe hare and lynx. Since 1985 milling capacitly capable of using lodgepole pine has increased significantly. One new mill located near Tonasket is designed to process small diameter material such as lodgepole pine. Two existing mills have made capital improvements to allow them to process small logs.

Access and harvest cost in some stands may exceed value of standing timber.

Response

Approximately 162 million board feet (32 million cubic feet) of lodgepole pine chargeable sawtimber will be harvested on the Forest during the next decade. In most cases lodgepole pine will be harvested by clearcut methods. Harvesting will reduce the hazard from mountain pine beetle and salvage of recently killed trees while increasing the acreage in young stands needed for lynx habitat. The Forest will provide a sustained level of lodgepole pine harvests necessary to support local industries.

Range Management

What is the appropriate level of grazing on the Forest?

Background

Conflicts can exist between grazing and recreation, wildlife, and timber management. Livestock and wildlife may compete for some of the same plant species for food. Timber harvest usually results in opening or removing of the tree canopy, allowing understory vegetation such as grasses to flourish. These grasses either seed naturally or are seeded to enhance the area for grazing, erosion control, or to prevent invasion by noxious weeds. This increase in understory vegetation creates 'transitory range' suitable for domestic livestock grazing. However, encouraging livestock in these areas may result in delays in reforesting the area with trees.

The Okanogan National Forest grazing program relies on transitory range. As much as 35 percent of the range capacity is provided by transitory range.

Response

Grazing at a level of 53,200 Animal Unit Months (AUMs) can be provided This is an decrease of five percent compared to the permitted livestock AUMs 10 year average. Actual use over from 1979 to 1988 has averaged near 50,000 AUMs.

Proposed, Threatened, Endangered, and Sensitive Species

How will proposed, endangered, and sensitive animals be managed and affected?

Background

The grizzly bear, bald eagle, and gray wolf have historical range that covers all or part of the Okanogan National Forest. None of these species are known to reproduce on the Forest, and only the bald eagle is sighted with any regularity. No critical habitats for these species have been identified on the Forest.

The Pacific Northwest Regional Guide was supplemented with a decision displaying Spotted Owl Management Guidelines on December 8, 1988. The decision directed the Okanogan National Forest to manage Spotted Owl Habitat Areas (SOW) in lands available for timber harvest which would link to other suitable owl habitat on reserved lands or on lands otherwise no available for timber harvest.

The presence of the northern spotted owl indicates specific habitat conditions exist. As those habitats were harvested, the spotted owl population declined. Currently the northern spotted owl is proposed for listing as threatened by the U.S. Fish and Wildlife Service. The trend indicates that other old growth dependent species may also be affected.

Response

The Forest Plan provides direction consistent with the Endangered Species Act and Recovery Plans for listed species. All management activities will protect habitat values for Threatened, Endangered, and Sensitive species.

Research Natural Areas

How can the Okanogan National Forest help met identified needs of the Research Natural Area Program?

BACKGROUND

The Forest Service recognizes the importance of Research Natural Areas (RNAs) and requires they be established to help to contribute to the body of scientific knowledge associated with natural resources and ecosystem management. The scientific community has expressed the need to provide areas representative of different ecotypes for scientific research. The Pacific Northwest Region, Forest Service, has identified certain biological cells that this physiographic area should provide as RNAs. The Wolf Creek RNA is the only RNA on the Okanogan National Forest. This RNA fulfills the need for the bitterbrush/bunchgrass biological cell.

RESPONSE

The Forest can look for suitable areas to fulfill the identified biological cells and suggest suitable areas for review to the Research Natural Area Committee. After review for suitability by the Committee, the Forest can proceed with establishment reports. While the proposed areas are awaiting Washington Office approval or rejection, they should be managed by Research Natural Area standards. Three Research Natural Areas are proposed on the Okanogan National Forest: Chewuch River, 8,500 acres; Roger Lake, 310 acres: and Maple Mountain, 1,400 acres. Tiffany Mountain Botanical Area is established. The Wolf Creek Area is already an established Research Natural Area.

Wildlife and Fish

How will the Okanogan National Forest ensure the maintenance of big game populations?

Background

Many management decisions affect big game populations on the Okanogan National Forest. Timber management has reduced the amount, quality, and distribution of cover for deer. However, timber management is also a tool for managing to sustain cover in the future.

Livestock grazing both on and off the Okanogan National Forest has reduced the supply

of quality forage available for deer on winter range. Other potential areas of conflict between livestock and big game include livestock damaging wildlife habitat improvements, livestock use of riparian areas, livestock browsing on aspen suckers, seeding of exotic grasses, livestock hosting several parasites that can be detrimental to wildlife, territorial displacement of wildlife by domestic sheep, and potential for sheep to disturb fawning areas.

Increased access and recreation activities also have the potential to affect big game populations. Helicopter skiing, cross-country skiing, snowmobiling, and hunting may increase big game disturbance. Winter range is the factor most limiting to big game populations. A portion of the winter range is in private ownership in the area adjacent to the Okanogan National Forest.

Response

Habitat capability of deer winter range will decrease from existing levels, from 18,800 to 17,700 deer in the first decade. Second decade habitat capability will remain at 17,700 and increase over time to 18,800 in the fifth decade. Timber management will occur in deer winter range, but snow intercept thermal cover will only be reduced in a few geographical locations. These areas are mostly found on the eastern half of Tonasket District, where cover values are more than adequate. In general, timber and access management will be designed and implemented to retain existing winter range values and increase values for the future. Outside of winter range, management activities will be designed to provide other habitat requirements for deer.

Bighorn sheep and mountain goat habitat will be managed specifically to benefit these species. Timber management, access, and livestock grazing will be limited and carefully controlled.

How will the Okanogan National Forest provide habitat for small game and non-game wildlife species?

Background

Vegetation management can affect small game and non-game populations. Timber management, firewood cutting, and prescribed burning have all reduced the supply of wildlife trees, and some habitats used by non-game species.

As discussed in the timber harvest level issue, the Okanogan National Forest contains a lynx population Lynx and snowshoe hare, the primary prey for lynx, are dependent on the early successional stages of lodgepole pine Timber harvest can benefit lynx and snowshoe hare and other lodgepole pine-dependent species by providing a mosaic of successional stages.

Both the public and Forest Service refer to old growth. This has created some confusion and inhibited communication. The Forest Service refers to old growth as presented in the final EIS, GLOSSARY.

Response

Habitat capability for old growth/mature indicator species will drop about 7 percent in the first decade and 15 percent by the second decade due to timber management in mature timber stands. Timber management will reduce mature conifer habitat in areas where adequate amounts and distribution will remain. Special silvicultural practices and rotation lengths will be applied in certain stands to provide future old growth habitat.

Habitat capability for primary cavity excavators (woodpeckers) will increase slightly from existing levels during the next two decades. Timber, firewood, and access management will provide adequate amounts and distribution of snags and green tree replacements.

Habitat capability for lynx will increase by about 13 percent in the first decade and 20 percent by the second decade. Timber and access management in lodgepole pine will be designed to enhance habitat conditions in a large portion of primary lynx habitat.

Habitat capability for ruffed grouse will increase slightly (less Man five percent) in the next two decades. Timber and livestock management will be designed to perpetuate and increase aspen and other deciduous habitat values.

How will the Okanogan National Forest provide habitat for anadromous fish and trout?

Background

The Okanogan National Forest contains about a 1,000 miles of streams and over 3,000 acres of lakes that provide habitat for fish. Only about 50 miles of these streams are utilized by anadromous fish for spawning and rearing. The greatest historic impacts on fish populations have been dam construction on the Columbia River and commercial fishing. Anadromous fish must pass a total of nine dams in the Columbia River system before reaching habitat on the Okanogan National Forest.

In general, timber management and road building activities can contribute sediment into fish bearing streams. Habitat for spawning and rearing can be covered by silt, resulting in the reduction of fish numbers. This has not been identified as a problem on the Okanogan National Forest to date.

Road building also can result in easier access to fish bearing streams and lakes, which can result in increased fishing pressure. This increase in pressure can also lead to a reduction in fish numbers and the quality of the fishery.

Livestock grazing along streams can reduce the quality of fish habitat. Reductions in streamside cover and bank stability can occur along with increased sediment levels.

Response

Fish habitat capability will be maintained or improved throughout the planning period. Timber, access, and livestock management will be designed, through the application of riparian and fisheries standards and guidelines, to minimize sedimentation and protect fish habitat quality. The existing high water quality standards will be maintained

Economics

How can the Okanogan National Forest increase economic efficiency?

Background

Concern has been growing that the National Forests should be managed in a more economically efficient manner. However, economic efficiency is defined differently by different people.

There are growing concerns about the below-cost timber sales, the rate livestock grazers pay, and even some discussion of recreation fees. The largest source of receipts is the Okanogan National Forest timber management program.

Response

The maximization of present net value was the criterion used to assure that the preferred alternative was the most economically efficient combination of outputs and activities needed to meet established objectives. Present net value (PNV) estimates the potential economic effectiveness of management of the land and water resources of the forest. PNV is the difference between the discounted value (benefits) of all outputs to which monetary values or established prices are assigned and the total discounted costs of managing the planning area. For more discussion, refer to the final EIS, APPENDIX 6, Chapter IV - Economic Efficiency Analysis.

The Forest Plan has a present net value of 312 8 million dollars. It ranked fifth in terms of PNV when all the alternatives were compared.

Will timber be harvested where harvest is not cost efficient?

Background

The Okanogan National Forest has several thousand acres of forest land suitable for timber management which have high timber harvesting costs. In these areas, the costs of harvest, including logging, fire protection, reforestation, and road construction, may exceed returns to the US. Treasury on a sale by sale basis. Often costs may be increased by measures taken to protect valuable wildlife habitat, to develop areas for long-term use, or to mitigate impacts on other resources such as watershed, scenic quality, or seasonal recreation users. Economic efficiency of Forest Service Timber Sales is dependent upon

regional and national timber markets.

Some have expressed a feeling that the Forest Service should only provide goods and services where dollar returns exceed dollar costs. Others oppose that view and indicate the Forest Service has a responsibility to continue to provide a timber harvest level that at least will maintain the current level of jobs in the community Economic efficiency of Forest Service timber sales is dependent upon regional and national timber markets.

Timber values have increased greatly in 1989. As a result of litigation and appeals throughout Region 6 of the Forest Service the demand for logs is high This has caused bid prices for Okanogan National Forest timber to increase.

Response

Timber harvest will occur only where the total benefits (priced and non-priced) exceed the costs of timber management in the long term. Silvicultural methods used will be those that most efficiently achieve management objectives.

What will be the economic effects upon local people?

Background

As discussed in the Timber Harvest Level issue, decreases or increases in timber offered for sale from the National Forest can be expected to directly and indirectly affect the number of jobs generated. Several hundred comments on the supplement to the draft EIS indicated there is an intense, local concern to maintain or enhance employment and income in Okanogan County. Okanogan County is one of the more economically depressed areas in Washington State.

On April 1, 1989, a group called “Communities For A Greater Northwest' organized a rally in Okanogan County The stated purpose of the rally was to demonstrate support for local forest industries and for multiple use management of the National Forest to meet the needs of local industry.

Response

Employment and receipts generated by Okanogan National Forest uses and products are important to local economies. Timber related employment is expected to decline.

The Forest Plan will also would provide opportunities for Increased economic growth in recreation related areas. It provides for development of the Early Winters Ski Area Such development would have the potential for stimulating significant economic growth within the area

Social

What will be the social effects on local people?

Background

Social effects include lifestyle; attitudes, beliefs, and values: populations and land uses; and perceptions of the local setting. Residents of the County have different lifestyles and their expectations for the forest are sometimes in conflict with the expectations of others. Reference final EIS, APPENDIX B.

Okanogan is a rural County. Many newer residents have moved here as an alternative to urban living. Many County residents perceive they have sacrificed higher incomes in other locations for the opportunity to live in Okanogan County.

Response

The Forest Plan will provide for protection of environmental factors such as air and water quality. Forest Plan land allocations provide for a wide variety of uses by the public. Customary uses of National Forest System lands by the public will be continued. There will be increased emphasis upon visual quality and recreation opportunities. Cultural resources will be protected. Public involvement in project planning will continue to present the public opportunity to maintain large role in forest management at the site specific level so that local concerns can be leveled.

Recreation

How will the Okanogan National Forest provide for winter recreation opportunities?

Background

Okanogan National Forest winter recreation uses include downhill skiing at the Loup Loup Ski Area, cross-country skiing, snowmobiling, helicopter skiing, and winter mountaineering.

Cross-country skiing is generally compatible with the recreation experience desired by snowmobilers, but the reverse is not always the case. Some cross-country skiers desire peace and quiet in a natural setting. The noise created by snow machines is incompatible with this type of experience. This can lead forest managers to designate areas open to only one of the activities, thereby limiting access to the other activity. In contrast, snowmobiles may complement cross-country skiing for many users by providing tracks that allow skiers easier gliding on trails.

Winter logging is widely used on the Okanogan National Forest and is sometimes required to meet management objectives. This results in timber sale purchasers plowing snow from the roads leading to sale areas. When this happens on roads groomed or

marked for cross-country ski trails or snowmobile routes, conflicts arise or winter recreation opportunities are lost.

Response

The Forest Plan will authorize upgrading of facilities at Loup Loup Ski Area Development of the Early Winters Alpine Winter Sports site will occur.

Cross-country skiing opportunities will continue to be provided in partnership with the Methow Valley Ski Touring Association, Okanogan Valley Nordic Ski Association, and Highlands Ski Club. These opportunities will be emphasized in the Sun Mountain, Rendezvous, and Loup Loup Summit areas and south of Havillah. Additional opportunities and partnerships will be encouraged.

Snowmobile opportunities will continue to be provided in partnership with the Okanogan County Snowmobile Advisory Board. Emphasis will be placed on groomed routes currently authorized under Memorandum of Understanding.

Special winter recreation events planned on Okanogan National Forest land will be supported to the extent practicable.

Winter recreation opportunities provided under Special Use Authorization or Memorandum of Understanding will be protected by restricting winter logging activities or by assuring that alternate routes are available.

Where provided, winter recreation opportunities will be managed to occur outside critical periods for wildlife or will be restricted to designated through routes.

Potential conflicts between motorized and non-motorized winter recreation activities will be resolved on a case by case basis, and will involve users in creating solutions. Separation of users will be used only as a last resort.

Timber management activities and new road access will increase the availability of areas for snowmobiling and cross-country skiing by creating more open timber stands and additional routes.

Existing helicopter skiing activities will continue to be authorized and additional opportunities will be considered on a case by case basis.

How will the Okanogan National Forest provide for off-road vehicle (ORV) recreation opportunities?

Background

The use of motorcycles and 4-wheel drive vehicles on the Forest can lead to conflicts between motorized and non-motorized recreation users. Hikers and horseback riders generally find motorized use on trails incompatible with their use. Motorized vehicles can

frighten horses. Decisions may be made to limit trails open to motorized use in order to lessen conflicts. The motorized users may then feel discriminated against and believe not enough area is provided for the enjoyment of their activity. Most trails on the Forest are either in wilderness or lead to wilderness and are closed to motorized use. This leaves few trails available for motorized use. The Forest has traditionally provided motorized and non-motorized opportunities.

Response

The Forest Plan will provide approximately 34,OOO acres of summer ORV (two-wheeled vehicles) opportunities in an unroaded setting. These areas will also be available to hikers and horse users. Conflicts between motorized and non-motorized users will continue in these areas.

Approximately 794,000 acres of unroaded land (both inside and outside wilderness) will be closed to summer ORV use. In addition, most trails leading to wilderness and trails leading to the North Cascades National Park Complex will be closed to ORV use. No conflicts will occur between motorized and non-motorized users.

Approximately 202,000 acres of unroaded land outside wilderness will be available for winter ORV opportunities in an unroaded setting. Winter ORV use in some unroaded areas may be restricted If incompatible with other resource objectives or non-motorized recreation activities. Conflicts between motorized and non- motorized users will generally be low, because access to most of these areas by non-motorized means is difficult.

For a discussion of ORV opportunities in a roaded setting, refer to the discussion under the Road and Access Management Issue.

How will the Okanogan National Forest provide for a variety of recreation opportunities?

Background

The Okanogan National Forest has the capability and capacity to satisfy many different recreation expectations. The variety of recreation opportunities demanded in recent years has increased. Conflict generally develops over particular uses being permitted, prohibited, or restricted in certain areas.

Many recreationists favor certain opportunities and settings. Some people wish to see more developed recreation sites, while others prefer isolated dispersed recreation sites. Still others seek a wilderness experience, carrying their camping needs on their backs or on pack stock.

Response

In addition to the 626,200 acres of Primitive recreation opportunities provided in the

Pasayten and Lake Chelan/Sawtooth Wildernesses, the Forest Plan will provide an additional 202,000 acres of Semiprimitive Non-motorized or Semiprimitive Motorized recreation opportunities in an unroaded setting outside wilderness. These opportunities will be provided in portions of the Liberty Bell, Sawtooth, Tiffany, Mt. Bonaparte, Pasayten Rim, and Bodie Mountain areas. No scheduled timber harvest will occur in these areas.

Approximately 183,000 acres of Roaded Natural recreation opportunities will be provided. These opportunities will be provided along portions of the North Cascades Scenic Highway and in the Chewuch/Eightmile, Upper Methow/Hart's Pass, MiddleSalmon Creek-Boulder Creek, Sun Mountain, Twisp River/Blackpine Lake, Loup Loup Highway, Alta Lake, North Fork Gold Creek, McClure Mountain, 5-Lakes, North Fork Salmon Creek, Sweat Creek, Mt. Hull, Toats Coulee, Aeneas Valley, Crawfish Lake, and Summit Lake areas. Scheduled timber harvest will occur in most of the areas outside the North Cascades Scenic Highway but with reduced timber yields in order to maintain retention and partial retention visual quality levels.

Approximately 695,000 acres of Rural and Roaded Modified recreation opportunities will be provided. These opportunities will occur in roaded areas with other than roaded recreation management emphasis. Timber yields in these areas will not generally be reduced because of recreation objectives. All current developed fee sites and most non-fee sites will remain in a Roaded Natural setting. Remaining sites will be in a more modified setting and may receive reduced levels of maintenance.

A variety of trail opportunities to accommodate a variety of recreation activities will be provided across the Forest. Trails will range from those which are primitive and more difficult to travel to those which are paved and very easy to travel. Barrier free trails will be provided as appropriate. Where project planning makes a decision to segment or shorten existing system trails, similar trail opportunities will be provided.

Scenery

What emphasis will be given to scenery?

Background

The Okanogan National Forest is well known for its unique and beautiful scenery. Maintaining a natural or nearly natural appearing landscape places restrictions on the amount, type, frequency and cost of vegetative manipulation (primarily timber harvest) in an area. The amount of land allocated to a Scenic designation directly affects the timber harvest goals of the forest. This may in turn affect the economic community in terms of the number of lobs available in the wood products industry.

Vegetation management can be used to enhance scenic quality through the creation of visual variety or vistas. Vegetation Management can also rehabilitate areas where the existing visual quality is unacceptable.

Access can be affected by scenic designations Traditional road design often cannot meet a high visual quality level when viewed in the foreground. The road design may have to be altered (narrowed), or located to follow the features of the landscape Economically feasible roads may be impossible to design to the required visual quality level. In this case, helicopter access may be required to achieve desired visual quality levels.

Access and vegetative management restrictions needed to create visually pleasing landscapes can greatly increase logging, fuel treatment, reforestation and precommercial thinning costs, or sometimes eliminate their feasibility.

The scope of this issue has expanded since the draft EIS was filed to cover the entire Okanogan National Forest. People are concerned with visual quality in the wilderness, in the designated scenic highway, in the Methow River Valley, and on the Okanogan Highlands. Much of the criticism directed at current and past management activity is a result of visual impacts.

Response

In addition to providing unaltered (preservation) visual quality levels on approximately 626,200 acres of wilderness, the Forest Plan will provide natural appearing or slightly altered (retention and partial retention) settings on approximately 385,000 acres and moderately altered and heavily altered (modification and maximum modification) settings on approximately 695,000 acres of non-wilderness land.

Natural appearing settings will be provided in unroaded areas with a Semiprimtive recreation management emphasis, in the North Cascades Scenic Highway, along the Hart's Pass Road and in Mountain Goat emphasis areas. Scheduled timber harvest will not occur and other management activities will be designed to maintain high visual quality levels.

Natural appearing and/or slightly altered (retention and partial retention) settings will be provided along those heavily traveled roads and trails managed for Roaded Natural recreation opportunities (see response to variety of recreation opportunities above for areas to be managed for roaded natural recreation opportunities) and in Big Horn Sheep emphasis areas. In these areas, timber harvest and other management activities will be designed to maintain or enhance visual quality levels. limber yields will be reduced. Timber harvest to salvage losses due to tire, insects and disease, and windstorms may alter the natural appearing setting in these areas in the short term.

Moderately altered or heavily altered (modification and maximum modification) settings will generally be provided in areas with other than a recreation management emphasis. In these areas, visual objectives will be met without a reduction in timber yields. Higher visual quality levels may be provided on a nominal number of acres in these areas to protect the immediate surroundings of a recreation attraction or feature of concern.

How should the North Cascades Scenic Highway be managed?

Background

The North Cascades Scenic Highway was established in The Washington State Wilderness Act of 1984. Congress designated the area for maintenance of existing scenic values. Congress directed the Okanogan National Forest to develop management direction for the area that recognizes the scenic values as part of the Forest Plan.

Congress did not prohibit timber halve3 or mineral entry in the area, but stated that any activity would have to maintain existing scenic values. This leaves a range of options from allowing scheduled timber management or mineral exploration with roads, to maintaining the area in an unroaded state (except the highway and current trailhead and campground developments), and withdrawing the area from mineral entry. The key phrase is 'existing scenic values.'

Response

The Forest Plan will manage the North Cascades Scenic Highway to preserve the high quality visual setting (retention) while providing recreational opportunities. A moderate expansion of recreation facilities will occur with an emphasis on day use and short duration stay opportunities.

Scheduled timber harvest will not occur. Selective removal of individual or groups of trees will be used on a non-scheduled basis to enhance scenic or recreation opportunities or to accomplish vegetation management objectives at developed sites. Insects and disease may be suppressed if they adversely affect the achievement of area objectives.

Only those existing roads needed for recreational activities will be reconstructed and/or operated and maintained to encourage highway vehicles. New roads necessary to provide access to new developed sites or to provide reasonable access to existing valid claims and/or leases will be permitted. Semiprimitive motorized recreation opportunities will be provided on designated routes and areas when the area IS Snow covered. New non-motorized trails will be constructed to access special features, classified areas, recreation management emphasis areas, and to enhance recreation opportunities.

Land use allocations emphasizing mountain goat habitat management will optimize habitat conditions to perpetuate a healthy mountain goat population. Domestic livestock grazing will not be permitted. Recreation livestock grazing will be permitted In most areas, but may be restricted or prohibited as necessary to protect other resources.

The existing 13,300 acre mineral withdrawal will be reviewed under the Withdrawal Review Program. Federal Energy Regulatory Commission applications which are inconsistent with visual and recreation objectives will be recommended for denial.

The preferred suppression strategy for all wildfires will be confinement. For those wildfires that threaten capital investments, management areas with more restrictive fire

management direction, or where resource damage is likely to be unacceptable, the preferred suppression strategy will be containment or control. Prescribed fire may be used.

Wild, Scenic, and Recreation Rivers

What rivers should be designated as wild and scenic rivers?

Background

Several rivers were considered for inclusion in the Wild and Scenic Rivers System. The rivers studied in the draft EIS were the Methow, Chewuch, Twisp, Lost, Pasayten Rivers, and Wolf Creek. Canyon Creek, Ruby Creek, and Granite Creek were added to the analysis disclosed in the final EIS.

To maintain the outstanding values of potential or designated Wild and Scenic rivers, the Wild and Scenic River Act states such rivers 'shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.' This can be achieved by applying management activities which maintain or enhance outstanding values of the river corridor.

Response

The Forest Plan will recommend Wild and Scenic River designation for the Methow 1, Methow 2, Methow 3, Chewuch 1, Chewuch 2, Chewuch 3, Twisp 1, Twisp 2, Twisp 3, Lost 1, Lost 2, Lost 3, Pasayten, Wolf 1, and Wolf 2 river segments It will be recommended the State of Washington determine the suitability of designation for the Methow 4, Chewuch 4, Twisp 4, and Wolf 3 river segments. Further Study will be recommended to determine the suitability of designation for the Canyon 1, Canyon 2, Granite 1, Ruby 1, and Ruby 2 river segments.

Until a decision has been reached regarding wild and scenic river designation, river segments will be managed to maintain the characteristics for the potential classification for which the segments are suited.

Cultural Resources

What protection will be given to historical sites?

Background

The Wilderness Act of 1964 states that wilderness is 'an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation . . . ' The Act also states that wilderness may contain . . . features of scientific, educational, scenic, or historical value.' Cabins in the Pasayten Wilderness have not been evaluated as to their historical value.

Response

The Forest Plan will continue the identification and evaluation of cultural and historical resources, with priority given to completing inventories and evaluations for those areas and sites where proposed undertakings will have the greatest potential to adversely impact eligible resources.

Federal law requires the mitigation of adverse impacts to eligible historical or cultural resources which will result from any proposed federal action. Specific mitigation measures for identified eligible resources will be determined on a case by case basis.

Long-term protection, maintenance, and interpretation needs of eligible resources will be based on evaluation results.

Coordination with Native American Tribes, as required by the American Indian Religious Act, will continue.

Consultation with the Washington State Historic Preservation Officer will follow the Programmatic Memorandum of Agreement between Region 6 and the Washington State Historic Preservation Office.

Multiple-Use

How will multiple-use of the Okanogan National Forest be provided?

Background

The Multiple-Use Sustained-Yield Act of 1960 states that "Multiple use' means the management of all the various renewable surface resources of the National Forests so that they are utilized in the combination that will best meet the needs of the American people.'

Response

The Forest Plan will provide the following land and resource uses (annual units, first decade):

- Provides the opportunity for 622,000 Developed Recreational Visitor Days.
- 0 53,200AUMs.
- 63.3 MMBF (12.3 MMCF) offered for timber harvest.
- 542,000 acres of suitable land available for timber harvest per year.
- 1,055,000 acres available for mineral exploration.

RPA

Will the Okanogan National Forest be able to simultaneously meet all RPA targets?

Background

Forest managers are concerned that the targets assigned in the 1985 to 2030 Resources Planning Act draft EIS may not be capable of being met simultaneously. Each target by itself can probably be met. But targets such as increasing deer numbers and increasing the timber harvest may not be simultaneously attained. The one exception to this is anadromous fish habitat improvement. Numbers in the 1910 RPA seem to be much too high when compared with habitat improvement potential on the Forest. Baseline information is presently being collected and will be used to reevaluate the RPA program outputs.

Response

Analysis shows that all RPA targets cannot be provided simultaneously. The Forest Plan provides high levels toward each target, but frequently falls short of the actual target. Specifically:

The Forest Plan will provide adequate recreation use carrying capacity to exceed RPA targets for developed and dispersed recreation visitor days and are estimated at 6 percent less than RPA for the first decade, increasing to 59 percent more in the fifth decade. The Forest Plan will not have a sufficient number of trail miles needing reconstruction to meet the RPA targets for trail construction and reconstruction for all time periods. However, the amount of trail construction and recocstruction is dependent on regional priorities and annual budgets. The projected outputs for trail construction and reconstruction under the Forest Plan will be less than RPA, but are considered more realistic.

Estimated water yield is not projected to change through time. Water yields are expected to remain nearly constant through the planning period.

Forage available will be slightly less than the target all decades.

In relation to national wildlife habitat capability targets for selected management indicator species or species groups, the trends of mule deer and white-tailed deer will decrease by 1995 (national targets are for increases in each of these species). The habitat capability for cavity-nesting birds will increase and agrees with the national target of status quo. Habitat capability for resident trout and anadromous fish is expected to show

a slight increase during the planning period (national targets are for major increases).

In relation to disaggregated targets specifically for the Okanogan National Forest, the expected outputs for acres of wildlife habitat improvements meet targets. However, habitat improvement targets can only be reached with appropriate wildlife funding levels Anadromous fish habitat improvement targets are expected to increase pounds of fish produced. Fishery outputs are expected to be only a fraction of RPA targets. The most significant increase in salmon and steelhead production on the Okanogan National Forest could come from an increase in migration survival at the Columbia River dams. Projects to improve this survival are presently under way but some work may not be complete until the mid to late 1990's.

The Forest Plan does not meet the RPA target for timber produced during the first and succeeding decades. Timber harvest during the first decade under the preferred alternative is 63.3 million board feet (12.3 million cubic feet) per year. This is 35 percent less than RPA.

Chapter 4: Forest Management Direction

Forest Management Goals and Desired Future Conditions

Goals

The Forest Plan for the Okanogan National Forest contains the following goals:

- The goal of the Forest Plan is to maximize net public benefits (NPB). This would be achieved by emphasizing a variety of high quality recreation opportunities and high scenic values in key areas and quality wildlife habitat. Other resources would be managed to achieve management area goals in the most economically efficient manner.
- About 63.3 MMBF (12.3 MMCF) per year of chargeable sawtimber would be offered for sale during Decade 1. The chargeable cubic foot sawtimber harvest level in future decades would be equal to or greater than that of the first decade. Timber management activities would occur in mixed conifer, lodgepole pine, and low productive stands. Approximately 16.2 MMBF (3.2 MMCF) of lodgepole pine sawtimber would be included in the annual timber sale program. Low productive stands would contribute an estimated 0.8 MMBF (0.2 MMCF) of the ASQ. In addition, about 12.5 MMBF of nonchargeable forest products (posts, poles, chips, firewood, etc.) would be made available each year. Timber harvests would be designed to maximize NPB over the long term. In some situations the dollar cost of timber management may exceed the revenue produced where necessary to achieve resource objectives. Mixed confer stands managed for scenic quality and wildlife habitat would be grown to 140 years or older. Stands managed for timber production would be at least 60 to 120 years old when regenerated. Insects and diseases in mixed conifer stands would be moderately reduced from current conditions. The risk of volume loss from mountain pine beetle would be greatly reduced from current conditions in lodgepole pine stands. Recent mortality caused by insects and diseases would be salvaged where possible Historic demand for firewood would be met. Firewood would only be provided where scenic quality and wildlife habitat management objectives could be met.
- Forest range vegetation would produce approximately 53,200 AUMs. Recreational pack and saddle stock is included within this amount Range improvements would be provided in accordance with the requirements of each management area.
- Deer winter range would be managed to provide close to optimum snow intercept thermal cover (SIT). At le& 5 percent of the old growth on suitable forest acres would be maintained in each township to provide for geographic distribution of old growth habitat. Timber sales will not be scheduled in mixed conifer stands that meet the definition of mixed conifer old growth during Decades 1 and 2. In townships that do not presently have 5 percent of suitable

forest acres in old growth, stands that may develop old growth characteristics within the next 5 decades will be retained to become old growth. Snag habitat would be maintained or enhanced over current levels Lynx, mountain goat, and bighorn sheep habitat would be managed to benefit these species.

- Fish habitat will be managed to maintain or enhance its biological, chemical, and physical qualities. Management will be responsive, where possible, to the goals and objectives of other agencies and Indian tribes, such as the Northwest Power Planning Council's goal to double the anadromous fish runs in the Columbia Basin Riparian area management will strive to provide an ecosystem fully occupied by historic plant community types. The structural and functional properties of these dynamic, multi-age communities will be managed to promote bank and channel stability, provide resiliency to disturbance, and aquatic diversity. Riparian management will also promote the capability for detention storage of water during flood events and the inherent ability to provide long-term stability of critical summer base flows.
- Riparian areas will be managed to provide a continuing supply of large wood to streams in order to maintain the quality and quantity of fish habitat that is characteristic of the streams potential.
- Roaded and developed recreation opportunities will be maintained in a natural setting in the North Cascades Scenic Highway and in a natural or slightly altered setting along major drainages and travel corridors. A moderate amount of area would be maintained as roadless. Downhill ski opportunities would be provided by the Early Winters and Loup Loup Ski Areas. Both sites would be developed according to approved site plans. Development at the Early Winters site has been delayed pending completion of additional environmental analysis as a result of litigation. Winter logging activities would be restricted in certain areas used for winter recreation opportunities Cross-country skiing and snowmobiling would be restricted to designated routes in deer winter range areas to decrease animal disturbance
- High or moderate visual quality levels would be maintained along the North Cascades Scenic Highway, along major drainages and travel corridors and in roadless areas
- Within the Pasayten and Lake Chelan/Sawtooth Wildernesses, human use and influence will be managed to preserve solitude and natural ecosystems Much of the Pasayten Wilderness west of the Pacific Crest Trail and in the Lost River and Eureka Creek drainages: and that portion of the Lake Chelan/Sawtooth Wilderness between Twisp Pass and Louis Creek would be managed in a trailless condition, accessible only by rigorous cross-country travel. The remaining portions of both wilder- nesses would be managed to provide trail access to many areas, but with trail access generally more difficult than on trails outside wilderness. No new trailheads would be constructed that would increase visitor use or distribute visitors into areas that currently receive only light use. Grazing of domestic livestock would continue in areas currently grazed and at current stocking levels. Structures and improvements would be reviewed and phased out d not essential for protection or administration.

- Portions of Liberty Bell, Sawtooth, Tiffany, and Mt. Bonaparte Roadless Areas will be managed for unroaded non-motorized and motorized recreation opportunities and wildlife habitat. The Bodie Mountain and portions of the Pasayten Rim Roadless Areas would be managed to provide minerals exploration and development opportunities while providing unroaded non-motorized and motorized recreation opportunities and wildlife habitat. The remaining roadless areas would be available for other resource uses, including timber production.
- 0 The North Cascades Scenic Highway will retain its outstanding scenic qualities, while providing recreation opportunities Trails would be for only non-motorized use during summer and fall. Motorized use opportunities off roads would be provided on designated routes and areas when the area is snow covered. Some trails would be closed to horse use. The handicapped-accessible trails at Rainy Lake and Washington Pass would be maintained. Scheduled timber harvest would not occur. Selective removal of trees would be prescribed on a non-scheduled basis to enhance scenic or recreation opportunities or to accomplish vegetative management objectives at developed sites. The majority of wildfires in the area would fall under a confinement fire suppression strategy. The mineral resources would be generally available for development, with consideration given to protecting the scenic values. The existing 13,300 acre mineral withdrawal will be reviewed under the Minerals Withdrawal Program.
- Wild and Scenic River designation would be recommended for the Methow I, Methow 2, Methow 3, Chewuch 1, Chewuch 2, Chewuch 3, Twisp 1, Twisp 2, Twisp 3, Lost 1, Lost 2, Lost 3, Pasayten 1, Wolf 1, and Wolf 2 river segments. The State of Washington would be asked to determine suitability for Wild and Scenic River designation for the Methow 4, Chewuch 4, Twisp 4, and Wolf 3 river segments. Further study to determine suitability for Wild and Scenic River designation will be recommended for Canyon 1, Canyon 2, Granite 1, Ruby 1, and Ruby 2 river segments. These recommendations are preliminary administrative recommendations that will receive further review and possible modification by the Chief of the Forest Service, Secretary of Agriculture, and the President of the United States. The Congress has reserved the authority to make final decisions on designation of rivers as part of the National Wild and Scenic Rivers System. Moderate opportunity for minerals exploration and development would be provided under this alternative.
- The Wolf Creek RNA would be retained. This alternative would recommend that RNAs be established at Maple Mountain, Roger Lake, and Chewuch River. Tiffany Mountain would be recommended as a Botanical Area.

TABLE 4 -1: The Forest Plan at a Glance

Output/Effect/Recommendation	Quantity
Timber Data for Decade 1: Allowable Sale Quantity --Mixed Conifer	 63.3 MMBF (12.3 MMCF) 47.1 MMBF [1]

--Lodgepole pine Nonchargeable Volume Total Timber Sale Program Quantity ---------- Estimated Average Annual Acres harvested --Even-aged Harvests[2] --Lodgepole Pine Harvest --Selection Harvests ---------- LTSYC	16.2MMBF [1] 12.5 MMBF [1] 75.8 MMBF [1] 7,100 acres[1] [3] 2,200 acres[1] 1,400 acres[1] 18.5 MMCF
Recreation Opportunities: --Primitive --Semiprimitive --Roaded Natural --Roaded Modified	 626,000 acres 202,000 acres 183,000 acres 695,000 acres
Visual Quality Objectives: --Preservation --Retention and Partial Retention --Modification and Maximum Modification	 626,000 acres 385,000 acres 695,000 cares
Wild and Scenic Rivers Recommendation	123.4 miles suitable 105.9 miles further study
Roadless Acreage End of Decade 1:	422,000 acres
Wintering Deer End of Decade 1:	17,700 animals
Road Construction:	41 miles1
Old Growth End of Decade 1:	126,000 acres
Present Net Value:	284.0 million dollars
Range	53.2 Thousand AUMs

[1] Commercially thinned acres are included.
[2] Average annual figures for the decade covered by the Forest Plan.
[3] Even-aged harvest also includes acres harvested in the lodgepole pine working group.

Desired Future Conditions

The present condition of the forest is discussed in final EIS, CHAPTER 111. As the Forest Plan is implemented, the condition of the Forest will change. This section summarizes the anticipated changes in the forest environment as a result of carrying out the management practices planned. The discussion looks at two future points in time; I) at the end of Decade 1 and, 2) at the end of Decade 5. The Forest after Decade 1. At the end of the first decade, there will be a perceivable change in the overall character of the landscape within the Forest boundary. The landscape in the parts of the forest that will be managed for commodity production will be modified by new roads and harvest units. Visually sensitive areas will be in a natural or near natural visual condition. Many of the unroaded areas allocated to Management Areas allowing commodity production will be entered with roads. Areas allocated to roadless allocations will remain unroaded. Areas allocated to Wilderness, Research Natural Area, or Botanical Area will remain essentially unchanged, modified only by natural processes. Riparian areas will continue to display riparian ecosystem values. Opportunities for roaded recreation will increase. Recreational

capacity will keep pace with demand as sites are developed and upgraded to meet the increasing demand. The National Recreation Strategy will be fully implemented, and the Forest will actively seek partnerships to accomplish a variety of recreation projects. The North Cascades Highway would continue to provide scenic and recreation opportunities. Habitat to support threatened and endangered species will be protected in accordance with recovery plans. Habitat to meet deer winter range requirements will be provided in Management Areas emphasizing winter range habitat. Areas dedicated to mountain goat habitat management will provide essential habitat. Projects to improve and enhance the habitat be underway. Other areas emphasizing habitat management for lynx and California bighorn sheep will also be providing habitats essential for those maintenance of those species Snag and dead tree habitat will be maintained across the Forest at or above that needed to maintain 60 percent of potential population levels of species dependant upon that habitat. Snags and replacement trees for snag habitat will be retained in areas where timber harvest will occur. Dead logs will be maintained on the ground for species utilizing such material as habitat and for maintenance of long term productivity. Fisheries habitat for rearing, spawning and migration will be in an improved state Habitat improvement projects will increase habitat diversity and streambank stability will enhance the fisheries habitat. Stands meeting old growth definition will remain unaltered except for natural events. Forest soil productivity will be maintained. Water yield and quality will be substantially the same. Areas with scheduled harvest will have new timber harvest units distributed through the mature forest Existing harvest units and regenerated stands of seedlings will continue to develop through sapling and pole stages to large trees capable of being used for sawtimber. Some stands will be being managed using uneven-aged silvicultural techniques. Insect and disease levels in managed timber stands will be lower than in unmanaged stands.

Grazing would continue in Management Areas where grazing is planned. Many range improvement projects compatible with Management Area requirements will have been completed or underway. Continued road system development and improvement will be taking place in areas where compatible resource activities are planned. Some roads will be closed. Many roads will appear less inviting for use as they are left in a rough or primitive state. Some roads will be closed to motorized use during certain seasons in cooperation with other resource management activities or other agency objectives. Overall open road mileage will be lower than under current conditions. Minerals development and exploration will continue to take place in areas not withdrawn by law, executive order, or management prescription. Mitigation will be guided by Management Area objectives. The Integrated Resource Analysis system will be fully implemented. Project planning in areas will be in accordance with all resource values considered using the Forestwide and Management Area Standards and Guidelines as a basis for planning direction. Public involvement will continue to be an important aspect of project planning.

The Forest after Decade 5

By the end of the fifth decade, there will be a very change in the overall character of the landscape within the Forest. The majority of the roads needed for resource management will have been constructed. The landscape in portions of the forest allocated to commodity production will display a substantially altered appearance. Visually senstwe

areas will have a natural or near natural appearance. Areas managed as Wilderness, Research Natural Areas, or Botanical Areas will still remain essentially unchanged except for the effects of natural succession. The North Cascades Highway would continue to provide scenic and recreation opportunities. Riparian areas will continue to display riparian ecosystem values. Habitat to support threatened and endangered species will be protected in accordance with recovery plans. Habitat to meet deer winter range requirements will continue to be available in Management Areas emphasizing winter range habitat. Areas dedicated to mountain goat habitat management will provide be in an improved condition. Other areas emphasizing habitat management for lynx and California bighorn sheep will also be providing habitats essential for those maintenance of those species. Snag and dead tree habitat will continue to be maintained across the Forest. Snags and replacement trees for snag habitat will be retained in areas where timber harvest will occur. Dead logs will be maintained on the ground for species utilizing such material as habitat and for long term productivity. Fisheries habitat for rearing, spawning and migration will be maintained at fairly constant level. Habitat improvement work will primarily consist of maintenance of existing improvements and replacement of failing structures. Some stands meeting old growth definition and which are in excess of acres necessary to meet management requirements, diversity, and visual requirements will have been entered for timber management purposes Forest soil productivity will have been maintained. Water yield and quality will not have been substantially altered. Areas with programmed harvest will have new timber harvest units distributed through the mature forest. Existing harvest units and plantations will continue to develop through sapling and pole stages to sawtimber sized material. Some stands will be being managed using uneven-aged silvicultural techniques Insect and disease levels in managed timber stands will be declining. Grazing will continue in areas planned for range use. Range improvement project will be primarily maintenance and replacement of existing improvements. Roads necessary for resource management will essentially be in place. Road management activities will continue road maintenance and use planning to meet use patterns. Many roads will continue to be closed during certain seasons in cooperation with other resource management activities or other agency objectives Minerals development and exploration will continue to take place in areas not withdrawn. Mitigation will be guided by Management Area objectives.

Table 4-2 summarizes projected resource outputs, environmental effects, activities and costs. Many of the outputs are targets or objectives of this Forest Plan.

TABLE 4-2: Summary of Projected Resource Outputs, Environmental Effects, Activities, and Costs for the Forest Plan (Average Annual Units)

Outputs and Effects (Units of Measure)	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5	NAS Code
Developed recreation Capacity (1000 RVDs)	622	876	925	980	1042	AN 1
Non-Wilderness Dispersed Recreation Capacity (1000 RVDs includes WFUDs)						

Semiprimitive Non-Motorized Semiprimitive Motorized Roaded Natural Roaded Modified	161 18 86 346	168 19 104 414	1618 18 123 490	161 18 142 566	161 18 161 642	AN 1 AN 1 AN 1 AN 1
Wilderness Capacity (1000 RVDs) primitive	405	405	405	405	405	AW
Trail Construction/Reconstruction (Miles)	30	30	30	30	30	AT 2
Developed Sire Construction/Reconstructions (PAOT)	20	20	20	20	20	AN 2
Visual Quality Objectives (1000 acres) Preservation VQO Retention VQO Partial Retention VQO Modification VQO Maximum Modification VQO	 626 332 53 584 111	 626 332 53 584 111	 626 332 53 584 111	 626 332 53 584 111	 626 332 53 584 111	 AV AV AV AV AV
Unroaded Areas Assigned to Unroaded Management Prescriptions (1000 Acres)	202	202	202	202	202	Various
Wilderness Management (1000 Acres)	626.2	626.2	626.2	626.2	626.2	AW
Cultural Resource Inventory (1000 Acres)	15	15	15	15	15	AC 111
Trail Maintenance (Miles)	900	900	900	900	900	AT 23
Anadromous Fish Estimated Harvest/Habitat Capability for Harvest (1000 Pounds)	3.8/11.6	6.1/12.1	7.6/12.1	9.1/1.1	10.6/12.a	CA 1
Anadromous Fist Habitat Improvement (1000 pounds of fish)	1.0	1.0	1.0	1.0	1.0	CA 2
Anadromous Fish Habitat Improvement (Structures)	14	14	14	14	14	CI 221
Anadromous Fish Habitat Improvement (Acres)	3	3	3	3	3	CA 222
Resident Fish Habitat Improvement (Structures)	14	14	14	14	14	CI 222
Resident Habitat Improvement (Acres)	3	3	3	3	3	CI 222
Management Indicator Species (Habitat Capability) Deer – Mule & White-tailed Winter Range Forestwide (1000 animals) Spotted Owl (pairs) Barred Owl (pairs)	 17.7/35.6 27 81	 17.7/34.9 26 78	 17.7/34.6 26 76	 18.8/34.2 26 74	 18.8/33.8 26 72	 CW 1 CW 1 CW 1

Pileated Woodpecker (pairs)	1109	1020	954	896	848	CW 1
Pine Marten (animals)	2949	2705	2555	2419	2288	CW 1
Three-toed Woodpecker (pairs)	262	239	228	218	206	CW 1
Primary Cavity Excavators Outside Wilderness/						
Forestwide % of max. potential woodpecker pop.	51/62	51/62	52/62	53/63	53/63	CW 1
Fish – Forestwide (1000s)						
Resident Trout (6")	290	295	295	295	295	CI 1
Spring Chinook Salmon (smolts)	120	132	132	132	132	CA 1 CA 1
Steelhead (smolts)	4.5	5	5	5	5	CW 1
Lynx – Forestwide (animals)	45	48	50	50	50	CW 1
Ruffled grouse - Forestwide (pairs)	908	913	919	923	929	CW 1
Wildlife Habitat Improvement (Acres/Structures)	2500/1000	2500/1000	2500/1000	2500/1000	2500/1000	CW 2
Range – Permitted Grazing (1000 AUMs)	53.2	56.9	56.7	55.9	55.7	DN 1
Range-Vegetation Mgmt (Acres)	717,000	NE	NE	NE	NE	DN 12
Noxious Weeds (Acres)	390	NE	NE	NE	NE	DN 24
Structural Improvements/Fences (Miles)	29	30	30	27	27	DN 221
Structural Improvements/Water Development (Number)	30	30	30	25	20	DN 221
Non-structural Improvements (Acres)	390	500	500	480	480	DN 222
Allowable Sale Quantity (MMBF/Yr.)	63.3	NA [1]	NA	NA	NA	--
Mixed conifer	46.3	NA	NA	NA	NA	--
Lodgepole Pine	16.2	NA	NA	NA	NA	--
SSC	0.8	NA	NA	NA	NA	--
Allowable Sale Qty. (MMCF/Yr.)						--
Mixed conifer	8.9	8.9	8.9	8.9	8.9	--
Lodgepole Pine	3.2	3.2	3.2	3.2	3.2	--
SSC	0.2	0.2	0.2	0.2	0.2	--
Firewood (million cubic feet)	0.7	0.7	0.7	0.7	0.7	--
Reforestation [2] (1000 acres/yr)	5.7	5.8	4.9	4.6	3.8	ET 24
Timber Stand Improvement (1000 acres/yr.)	1.9	2.0	5.6	6.4	5.2	ET 25

Timber Growth (million cubic feet)	12.1	8.9	10.6	10.9	12.9	--
Long Term Sustained Yield Capacity (million cubic feet) [3]	NA	NA	NA	NA	NA	--
Water Yield (1000 acre feet)	2315	2315	2315	2315	2315	FW 1
Accelerated Sediment Production (1000 tons/decade index)	145.6	192.7	193.9	171.9	159.5	FW 1
Improved Watershed condition (Acres)	100	NE	NE	NE	NE	FW 22
Watershed Improvement (Acres)	100	NE	NE	NE	NE	FW 22
Minerals-Operating Plans [4]	75	86	89	92	94	GM
Minerals-Produced [5] (million $)	0.10	0.57	1.15	2.05	3.11	gm
Arterial and Collector Road Construction/Reconstruction (Miles)	5.2	4.6	0	0	0	LT 222
Timber Purchase Road Construction/Reconstruction (Miles)	41.0	31.3	33.0	21.0	26.4	LT 222
Roads Suitable for Public Use (Miles) Passenger car (miles) High clearance vehicle only (miles)	 1029 860	 1019 812	 1021 820	 1009 765	 1014 787	 LT 233 LT 232
Fuel Treatment (1000 Acres)	6.8	8.8	8.6	7.8	7.3	PF 2
Landline Location (Miles)	30	20	20	20	20	JL 24
Landline Maintenance (Miles)	20	30	30	30	30	JL 23
Landline Exchange/Transfer (Acres)	300	100	50	50	50	JL 123
Operational Costs (million $)	12.1	12.4	12.3	12.3	12.2	NA
Capital Investment Costs (million $)	1.3	1.3	1.2	1.2	1.0	NA
Total – National Forest System Allocated [6] (million $) Appropriated [7] (million $)	 0.1 13.3	 0.1 13.6	 0.1 13.4	 0.1 13.4	 0.1 13.1	NA
Returns to Government (million $)	4.1	4.0	4.0	4.0	4.0	NA
Human Resource Program (Person years)	16	16	16	16	16	HS
Potential Changes in Jobs [8] (change in number)	-268	NE [9]	NE	NE	NE	NA
Changes in Income (Change in total $) (Million $)	-4.37	NE	NE	NE	NE	NA
Payments to Counties	0.9	0.9	0.9	0.9	0.9	NA

(million $)						

Outputs and Effects (Units of measure)	
Total area available for specific resources uses (1000 acres)	
Timber harvest [10]	837.7
Grazing [10]	951.4
Mineral Exploration [11]	1055
Annual average acreage harvested in Decade 1 [12]	
Clearcut [13] (1000 acres/year)	
Shelterwood	4.0
Selective cut	1.7
	1.4
Lands tentatively suitable for timber production (1000 acres)	703.2
Lands suitable for timber production (1000 acres)	541.9
Lands with timber yield reductions (total suitable acres)	
Full yield (1000 acres)	
50%-99% of full yield	271.1
1%-49% of full yield	155.4
No yield	115.4
	161.3

1 Not Applicable

2 Acres of reforestation including those areas where natural regeneration will occur following scarification by timber sale operators during logging and subsequent slash disposal. Reforestation from both even-aged and uneven-aged harvests is included.

3 The amount attained in Decade 15 is 18.5 MMCF.

4 Includes operating plans, Notices of Intent, prospecting permits, material sales, free-use permits, and leases involving locatable, leasable, and saleable materials.

5 The values offered here are estimated based upon minerals accessibility. Actual production is difficult to predict and could vary substantially...

6 Funds from other agencies.

7 All other funds.

8 Includes primary employment and secondary employment.

9 NE- Not estimated.

10 Area available for specific resource prescriptions includes both acres suitable for specific resource management and unsuitable inclusions which will be crossed in order to access suitable lands.

11 Lands not withdrawn from mineral entry.

12 These acreages are estimated based upon aggregated Forest data. Harvest systems will be selected based upon site specific data following an interdisciplinary analysis and subject to the goals for each management area.

13 Both clearcut and seed tree harvest systems are included.

Resource Summaries

This section summarizes the resource outputs and schedules by program area. These resource summaries are supplemented by appendices. The appendices are not direction but are annually updated lists of information. In contrast, the resource program

summaries are direction statements and, unless results of monitoring drive a different decision. a different decision, will not change.

Timber Management Program

Timber harvest is scheduled from a base of 541,900 acres of suitable forest lands. This includes 36,500 acres in the low productive working group that are placed in a separate suitability component. The mixed conifer working group contains 359,800 acres. It is separate and non-interchangeable with the lodgepole pine working group which contains 145,600 acres Areas not available for scheduled timber harvest include:

- the North Cascades Scenic Highway,
- the Pasayten and Lake Chelan/Sawtooth Wildernesses,
- lands allocated to semiprimtive recreation,
- developed recreation and administrative sites,
- lands allocated to mountain goat management,
- lands allocated to Botanical Areas and Research Natural Areas,
- areas allocated to unroaded minerals.

Timber harvest and related activities are reduced in scenic viewsheds, riparian areas, deer winter ranges, old growth, and other areas where creation or maintenance of wildlife habitat is of concern. The season of year when timber management activities are permitted may be restricted to meet recreation, soils, watershed, and wildlife objectives in some areas.

During Decade 1 the annual quantity of chargeable sawtimber volume offered for sale (ASQ) will be approximately 63.3 MMBF (12.3 MMCF). Figure 4-1 displays the Long Term Sustained Yield Capacity (LTSYC) and the ASQ projected for 15 decades. The timber sale 5-year program, displayed in the FOREST PIAN, APPENDIX D, is based on current conditions and information available. If these conditions change or If new information becomes available, the timber sales program may be modified during implementation of this forest plan. The degree of modification will determine whether or not a Plan amendment will be required. Chargeable volumes include green and recently dead sawtimber meeting minimum utilization standards contained in the Regional Guide that are harvested from suitable lands. Non-chargeable products such as chippable cull, firewood, special products not meeting utilization standards, and harvests from unsuitable lands are expected to be offered for sale according to demand and subject to Forestwide Standards and Guidelines. Approximately 3.8 MMBF (0.7 MMCF) of firewood will be made available annually during the next decade for personal and commercial use firewood cutting About 8.7 MMBF (1.7 MMCF) per year of other non-chargeable products would be made available upon request and as markets develop. Much of this non-chargeable volume is chippable submerchantable timber found on sites from which chargeable sawtimber will be harvested.

Figure 4-1: Display of Long Term Sustained Yield Capacity and the Projected
[insert figure]

Investments will be required for transportation systems, reforestation, and protection (fuel treatments, control of insects, disease, and animal damage) to attain this level of timber production.

Table 4-4 displays the acres of suitable forest lands from which the allowable sale quantity was calculated. Of the 541,900 acres that are suited for timber production, 36,500 acres of the Low Productive Working Group are in a separate suitability component. These lands have less adequate information available regarding their response to silvicultural treatments than do other suitable lands.

TABLE 4-3: Ten-Year Allowable Sale Quantity Goals by Working Group, Management Area, and Ranger District[1]

		Tonasket			Twisp			Winthrop			Forest Totals			
MA[3]	Units	MC[4]	LP[5]	Low[6]	MC	LP	Low	MC	LP	Low	MC	LP	Low	Total
5	MAcres[7]	2.1	0.7	NA[8]	1.2	0.0	NA	1.3	0.4	NA	4.6	1.1	NA	5.6
	MMBF	16.0	5.0		9.0	0.0	NA	10.0	3.0	NA	35.0	8.0	NA	43.0
12	MAcres	1.6	6.8	NA	0.0	0.0	NA	1.3	2.7	NA	2.9	9.5	NA	12.4
	MMBF	12.0	50.0	NA	0.0	0.0	NA	10.0	20.0	NA	22.0	70.0	NA	92.0
14	MAcres	6.5	0.5	NA	2.6	1.6	NA	0.0	0.0	NA	9.1	2.2	NA	11.3
	MMBF	50.0	4.0	NA	20.0	12.0	NA	0.0	0.0	NA	70.0	16.0	NA	86.0
25	MAcres	13.5	3.5	NA	13.4	2.2	NA	11.2	3.0	NA	38.1	8.7	NA	46.8
	MMBF	104.0	26.0	NA	103.0	16.0	NA	86.0	22.0	NA	293.0	64.0	NA	357.0
26/11	MAcres	5.6	0.5	NA	0.0	0.0	NA	0.0	0.0	NA	5.6	0.5	NA	6.1
	MMBF	43.0	4.0	NA	0.0	0.0	NA	0.0	0.0	NA	43.0	4.0	NA	47.0
Not alloc[9]	MAcres	--	--	NA	--	--	NA	--	--	0.6	--	--	2.4	2.4
	MMBF	--	--	NA	--	--	NA	--	--	2.0	--	--	8.0	8.0
Total	MAcres	29.3	12.1	1.2	17.2	3.8	0.6	13.8	6.1	0.6	60.2	22.1	2.4	84.7
	MMBF	225	89.0	4.0	132.0	28.0	2.0	106.0	45.0	2.0	463.0	162.0	8.0	633.0

1 The ten-year timber sale program is based upon current conditions and information available at the time of Forest Plan development. If the conditions change, or if new information becomes available, the timber sales program may be modified during implementation of the Forest Plan. The degree of modification will determine whether or not the Forest Plan needs amendments, in accordance with the required processes.

2 Volume and acreage disaggregation to Ranger districts is approximate. Forest Plan monitoring and program control is based upon National Forest total acres and volume.

3 MA - Management Area

4 MC - Mixed Conifer working Group

5 LP - Lodgepole Pine Working Group

6 Low – Low Productive Working Group

7 Thousand Acres

8 NA – Not allocated

9 Volume Not Allocated to Specific Management Area.

The age class distribution of existing and future stands IS shown in Table 4-5. In the future there will be a higher proportion of stands in younger age classes than at present. Table 4-6 displays the volume of timber in growing stock (inventory), and the growth on that growing stock for existing and future forests. Accompanying the shift from older to younger ages shown in Table 4-5 will be an increase in net growth that will begin to manifest itself by the beginning of the fifth decade. Note also that growth will exceed the projected ASQ (12 3 MMCF) in Decade 5.

TABLE 4-5: Age Class Distribution on Suitable Forest Lands (I000 acres)

Age Class	Present Forest	Future Forest [1 2]
0-19	5.0	52.5
20-59	79.1	170.2
60-89	0	79.1
90-119	58.3	0
120-149	0	47.3
150+	399.5 [3]	192.8 [3]

1Acres with residual overstory following shelterwood of see tree cutting shown in overstory age class.

2 At the beginning of Decade 5.

3 Includes two-story stands with seedling, sapling, or pole understory.

TABLE 4-6. Present and Future Forest Conditions Outside of Wilderness, Classified Areas, and Areas Where Multiple Use Considerations Preclude Timber Management

	Units of Measure	Suitable Forest Land	Unsuitable Forest Land
Present Forest [1]:			
Growing Stock	MMBF	3592.7	558.5
	(MMCF)	725.8	132.9
Annual Net Growth	MMBF	59.9	No date
	(MMCF)	12.1	No date
Future Forest [2]:			
Growing Stock	MMCF	666.3	Not projected
Annual Net Growth	MMCF	12.9	Not projected
Rotation Age [3]:			
Mixed conifer	Years	80 to 120	Not applicable
Lodgepole Pine	Years	6- to 80	Not applicable

1 Board foot to cubic foot ratio of 4.95 used to calculate MMBF from MMCF. Board foot to cubic foot ratio derived from the Regional Guide, Appendix G.

2 At the beginning of Decade 5.

3 Average rotation age for regenerated stands with timber emphasis.

Timber productivity for suitable lands is displayed in Table 4-7. These estimates are based upon the 1977 timber inventory. The inventory relied upon normal yield tables to estimate productivity. Recently completed estimates of productivity by Williams and Lillybridge (1982) suggest that the timber yield potential of some stands may be somewhat less than predicted by normal yield tables.

TABLE 4-7. Timber Productivity Classification

	Units of Measure	Suitable Forest Land	Unsuitable Forest Land

Present Forest [1]:			
Growing Stock	MMBF	3592.7	558.5
	(MMCF)	725.8	132.9
Annual Net Growth	MMBF	59.9	No date
	(MMCF)	12.1	No date
Future Forest [2]:			
Growing Stock	MMCF	666.3	Not projected
Annual Net Growth	MMCF	12.9	Not projected
Rotation Age [3]:			
Mixed conifer	Years	80 to 120	Not applicable
Lodgepole Pine	Years	6- to 80	Not applicable

1 Board foot to cubic foot ratio of 4.95 used to calculate MMBF from MMCF. Board foot to cubic foot ratio derived from the Regional Guide, Appendix G.

2 At the beginning of Decade 5.

3 Average rotation age for regenerated stands with timber emphasis.

TABLE 4-8. Allowable Sale Quantity and Timber Sale Program Quantity (Average Annual for Decade 1)

Harvest Method	Allowable Sale Quantity Sawtimber [1]	
	MMCF	MMBF
Regeneration Harvest:		
Clearcut	5.0	25.0
Shelterwood and Seed Tree		
Preparatory Cut	0.2	1.0
Seed Cut	2.8	14.8
Removal Cut [2]	1.6	9.0
Selection	1.0	5.1
Intermediate Harvest: Commercial Thinning	0.1	0.5
Sanitation/Salvage [3]	1.6	7.9
TOTAL	21.3	63.3
Additional Sales of Other Products [4]	2.5	12.5
Timber Sale Program Quantity [5]	14.8	75.8

1 Includes only chargeable volumes from suitable lands.

2 Includes overstory removal from natural stands.

3 Sanitation/salvage volume includes anticipated mortality due to insects, disease, and wildfire. Should this mortality fair to occur volume will be sold a live timber.

4 Includes only nonchargeable volumes from suitable and/or unsuitable lands, including firewood, chippable, posts, and poles.

5 Total of allowable sale quantity and additional sales of nonchargeable material.

Table 4-8 and Table 4-9 summarize and display the anticipated acreage treated by silvicultural methods that may be used to implement the Forest Plan, and their contribution to the ASQ. Entomologists have predicted substantial mortality may occur in stands susceptible to mountain pine beetle attack. In 1986 the Okanogan National Forest entered the initial stages of a mountain pine beetle epidemic. The Forest Plan will permit

harvest of this mortality as it occurs, often in conjunction with other harvesting methods. Should the ongoing mountain pine beetle epidemic subside the sanitation and salvage harvesting may not be necessary. In this case there will be a corresponding increase in the acres treated by other methods, primarily by clearcut, seed tree, or shelterwood.

TABLE 4-9. Vegetation Management Practices on Suitable Forest Lands During the Next Decade

	Units of Measure
Regeneration Harvest:	
Clearcut & Seedtree (Seed Cut) [1]	4040
Shelterwood & Seedtree	
Preparatory Cut	100
Seed Cut	1700
Removal Cut [2]	960
Selection[3]	1400
Intermediate Harvest:	
Commercial Thinning	130
Salvage/Sanitation Harvest [4]	190
Timber Stand Improvement	1900
Reforestation [4]	5740

1 Includes reforestation resulting from timber sales and from replacement of stands containing little merchantable volume where future growth is likely to be poor because of effects of insects, disease, or past suppression..

2 Includes removal harvest from seedtree system and final removal from unmanaged two-story stands.

3 sanitation salvage volume includes anticipated mortality due to insects, disease, and wildfire. Should this mortality fail to occur, volume will be sold as live timber and stands will be treated by other harvest methods.

4 Includes natural and artificial reforestation where appropriated funds and Knutson-Vandenberg (KV) are used for site preparation, planting, or direct seeding.

Table 4-1 0 and Table 4-1 1 display the silvicultural direction for each management area, and an estimate of the acreage that may be managed by either even-aged or uneven-aged systems The actual silvicultural systems applied during implementation of this Forest Plan will be determined following site specific analysis and with an interdisciplinary process.

TABLE 4-10: Summary of Silvicultural Direction for Each Working Group and Management Area Where Scheduled Timber Harvest May Occur.

Management Area	Management Direction
5	Uneven-aged or even-aged management in mixed conifer and low productive working groups, subject to site specific analysis and Forest Plan direction. Even-aged management in the lodgepole pine working group.
11	Even-aged management in the mixed conifer and lodgepole pine working groups. Uneven-aged management in the low productive working groups.

12	Even-aged management in the mixed conifer and lodgepole pine working groups. Uneven-aged management in the low productive working groups.
14	Uneven-aged or even-aged management in mixed conifer and low productive working groups, subject to site specific analysis and Forest Plan direction. Even-aged management in the lodgepole pine working group.
25	Uneven-aged or even-aged management in mixed conifer and low productive working groups, subject to site specific analysis and Forest Plan direction. Even-aged management in the lodgepole pine working group.
26	Uneven-aged or even-aged management in mixed conifer and low productive working groups, subject to site specific analysis and Forest Plan direction. Even-aged management in the lodgepole pine working group.

TABLE 4-11: Estimated Acres by Silvicultural System for Each Management Area (1000 acres)

Management Area	Silvicultural System	
	Even-aged	Uneven-aged
5	70.1	35.2
11	3.0	0.2
12	47.9	3.5
14	87.1	12.0
25	200.9	25.3
26	50.0	6.9
Total	458.8	83.1

Potential Timber Supplies

Table 4-12 displays an analysis of the impact that differing price assumptions have on sawtimber production and the acreage of suitable lands. This analysis was conducted with FORPLAN, the linear program used to calculate outputs and effects for forest planning. Should prices significantly increase it may be possible to increase the ASQ by entering varying amounts of forest lands that are now classified as unsuitable due to economic efficiency reasons. An increase in the ASQ would first require that the Forest Plan and accompanying Environment Impact Statement be amended.

TABLE 4-12: Evaluation of Potential Timber Supplies and Suitable Forest Lands Associated with Various Price Assumptions

Comment	Analysis A	Analysis B	Analysis C	Analysis D

Lands tentatively Suited for Timber Production (1000 acres)	703.2	703.2	703.2	703.2
Unsuited due to multiple-use objectives (1000 acres)	100.3	100.3	100.3	100.3
Unsuited for economic efficiency and FORPLAN harvest scheduling (1000 acres)	541.9	548.8	556.8	569.0
Suitable lands (1000 acres)	541.9	548.8	556.8	569.0
Decade 1 ASQ MMCF/Year MMBF/Year	 12.3 63.3	 13.1 67.1	 13.6 70.1	 14.2 72.5
LTSYC (MMCF/Year)	18.5	18.7	19.1	18.8

[1] Analysis A is the Forest Plan as proposed, both even-aged and uneven-aged management are modeled. Other analyses are based upon substantially the same assumptions, however, only even-aged management was modeled. The results displayed are proportionally correct.

Analysis A uses the acres, yields, and price assumptions associated with the Forest Plan. Analysis B is based upon similar yield assumptions, however, prices were increased by 25 percent for all species and working groups. Analysis C displays prices increased by 50 percent, and analysis D shows the acreage and outputs that would occur if the maximum sawtimber output was produced, regardless of price and economic efficiency.

Table 4-12 shows that the Okanogan National Forests could efficiently produce an estimated additional 9.2 MMBF (1.9 MMCF) of chargeable sawtimber each year should prices changes as a result of increased demand. This increase in allowable sale quantity would require an additional land base of 27,100 acres. It would also require greater use of precommercial thinning and other intensive management practices.

Watershed Program

The watershed program on the Okanogan National Forest is grouped into several parts: 1) coordinating with other resources to provide support and advice that helps protect the soil and water resource; 2) monitoring the implementation of the forest plan activities on the soil and water resource; 3) updating the soil resource inventory to better integrate other resources; 4) restoring damaged soil and water resources; 5) working with the Washington State Department of Ecology or others as needed to insure water rights are secured through water rights filings or adjudications; 6) coordinating with water resource developers to provide adequate protection for the water resource as their needs are met; and 7) coordinating with other agencies or interested parties.

The major coordination with other resources will be with the timber program. Timing of support will be tied to the development of individual timber sales. It will involve initial consultation on inventory and needs of the soil and water resources through evaluation of management practices as the timber sale IS completed. The specific projects are listed in the FOREST PIAN, APPENDIX D. Other coordination will be done with range, geology and minerals, fuel management, wildlife, land management planning, recreation management, engineering, and non-timber sale work such as seed orchards and fertilizer trials Schedules for outputs from these resources, where they exist, are found in the FOREST PIAN, APPENDICES.

Monitoring of the effects of the Forest Plan will help determine if management practices are changing the soil and water resources. The major elements to be monitored are soil productivity, stream channel condition. water quality and BMPs. Periodic management reviews by Forest and Regional Staff also help monitor the effects of management on the elements mentioned above.

Needs for the next major planning effort will include an updated soils inventory. Work has begun on the inventory in 1989 and incremental amounts will be done until the whole Forest is redone. The soils inventory should be ready for the next revision of the Forest Plan in about 1999.

Watershed restoration needs on the Forest normally involve maintenance of soil and water control structures in old timber sales or improperly restored roads, landings, or timber harvest areas. A watershed restoration schedule is listed in the FOREST PIAN, APPENDIX E. The restoration schedule will be updated as new projects are identified, older projects require maintenance, or projects are completed.

There is increased competition for water resources. The Forest has undertaken an aggressive water rights filing program to insure water will be available for resource uses, such as range management and recreational campgrounds, now and in the future. The National Forest System land formally reserved under the Federal Organic Act of 1897 have reserved water rights for the purposes of production of timber and a continuous supply of water. These rights are recognized by the State of Washington and receive a priority use date of the actual reservation date of the land where the water is withdrawn and used. The Forest is now current with water rights filing for its current uses. As the resources are developed and require water, applications for water rights will be filed with the Washington State Department of Ecology. These projects are not now known, but will likely be tied to range and recreation program developments.

The Forest will work with water resource developers as they show interest in projects. There are several diversions for irrigation and domestic purposes. One project, the Early Winters Alpine Winter Sports Site project, will withdraw substantial water in the future and may require storage. A large mining operation could also use considerable water if the industry develops. There is no definite schedule for these projects as they are developed by the private sector in response to outside factors.

The Forest will work with other agencies and organizations concerned with water resources draining the Forest. These may include soil and water conservation districts, the USDI, Soil Conservation Service, City and county officials, water basin planning groups, the Washington State Department of Ecology, the Colville Confederated Tribes, or federal agencies. Coordination is developed as needed

Lands Program

The goals of the lands program include obtaining rights-of-way to provide access where needed: sharing in the construction cost of roads that serve National Forest, landowner, and other user needs; continue working with Okanogan County to transfer roads with substantial local use to County jurisdiction, and adjusting landownership by changing ownership through 1) purchases, 2) exchanges, and 3) donations with private landowners, State and local government agencies, and transfer with other Federal agencies.

Uses of National Forest System land that conforms to the Forest Plan may be permitted. Other uses may be permitted if they are compatible with planned uses and non-National Forest lands are not reasonably available. Public and private land in and around Okanogan National Forest will be classified to encourage the best land pattern the Forest can seek. All land will be classified according to the criteria set forth in the FOREST PLAN, CHAPTER 4 - Forestwide Standards and Guidelines. Land acquisition and disposal decisions will be deferred until the needed studies have been completed.

Minerals Program

Due to the structure of mineral laws and regulations the Forest Service's Minerals Management Program is largely responsive in nature. Except for in-service salable mineral contracts and permits, a major part of this job will be responding to applications and proposals submitted from outside the agency. Forest Service responsibility for such proposals lies mainly in providing reasonable surface protection and reclamation requirements within specified time frames and in assuring compliance of the same. The basic objective will be to facilitate minerals exploration and development on National Forest System land while accommodating the needs and conservation of other resources to the fullest extent possible.

It is anticipated that action will be necessary on an average of 75 mineral operating plans, lease applications, permits, etc., per year for the first decade. Actual numbers will be dependent largely upon the response of private industry to the economy and minerals demand. Average annual mineral production, including energy minerals, from National Forest System land during the first decade is estimated at $l00, 000. Actual production may vary substantially because of the inherent difficulty in predicting mine developments.

Mineral examinations may be initiated by the Forest to assess mineral values or valid rights in cases of suspected occupancy trespass, wilderness mining claim development, land exchange proposals and/or other administrative purposes Technical examinations will also be necessary for any mining claim patent applications received involving forest

lands.

As with the other resource areas, the monitoring actions will be an important part of the minerals program. The monitoring plan is designed to monitor minerals availability and operational and administrative effectiveness and reasonableness, including reclamation connected with mineral operations. Project specific environmental analyses for potential future mineral development may show a need for Plan amendments.

Wilderness Program

The Pasayten and Lake Chelan/Sawtooth Wildernesses (626,200 acres) will be managed to preserve the wilderness character of the areas, and administered to provide such uses consistent with the Wilderness Act of 1964 in a manner compatible with the preservation of wilderness.

Project activities will be guided by the principles implied by the questions 'Is it required for management of the area as wilderness?' and if so, 'IS it the minimum tool necessary to accomplish the task?

Detailed management information is provided in the FOREST PIAN, CHAPTER 4 - Forestwide Standards and Guidelines. Overall management actions will be aimed at preventing and/or reducing impacts from human activities within wilderness. Examples of these actions are the decisions to remove the Remote Automated Weather Station, USGS Water Gauging Station in Andrews Creek, and the determination War Creek Cabin is not needed for administrative purposes.

Necessary trail access will be provided consistent with the objectives for the area Trails will be reconstructed, but will generally be more primitive and more difficult to travel than trails outside wilderness. Trails not needed to meet wilderness management objectives will be allowed to brush in or be returned to as near a natural condition as possible.

The physical, social, and managerial settings within wilderness will be monitored to assure that wilderness attributes are maintained. Degradation of key resources, utilizing the principles of 'Limits of Acceptable Change' (Le, the amount of human-caused change allowed in selected ecological and social factors within wilderness which would not result in loss of the wilderness character), will not be permitted.

An overall capacity for wilderness visitor use has been estimated. During the next decade, this capacity estimate will be refined to enable managers to be more geographically specific. Visitor use tends to concentrate in certain areas, and at some point capacity could be reached in localized areas, necessitating management action, while the overall area remains well below capacity.

Coordination will occur with the National Park Service, Washington Department of Wildlife and other agencies on a case by case basis. Project proposals in the Lake Chelan/Sawtooth Wilderness will be carefully coordinated with the Wenatchee National

Forest to assure that the wilderness is managed as a whole, and not as two administrative units. Coordination with the Skagit Environmental Endowment Commission will be an important need within that part of the Pasayten Wilderness drained by the Skagit River.

The FOREST PLAN, APPENDIX A, contains a listing of specific wilderness projects. As additional projects are identified, they will be incorporated into this appendix as the first step in project implementation.

Recreation Program

The Okanogan National Forest will fully implement the National Recreation Strategy. The Forest will encourage, establish, and sustain a diverse and balanced spectrum of quality recreation opportunities, services, and facilities in recreation service partnerships with outdoor recreation and use groups; other recreation providers; and groups representing ethnic minorities, the elderly, disabled, economically disadvantaged, and youth.

Portions of the Sawtooth, Liberty Bell (both inside and outside the North Cascades Scenic Highway), Tiffany, Mt. Bonaparte, and Pasayten Rim Roadless Areas will be managed to provide quality Semiprimitive Non-motorized and Semiprimtive Motorized recreation opportunities. The primary management activities in these areas will be maintaining and reconstructing trails, construction of new trails for a variety of recreation activities, and installation and maintenance of facilities to enhance recreation opportunities or for resource protection. Outfitter-guide operations in these areas will be encouraged. Additional opportunities to accommodate Semiprimtive Motorized recreation activities will be available in the Bodie Mountain Roadless Area.

The North Cascades Scenic Highway will be managed to maintain a quality scenic setting while providing increased recreation opportunities. Emphasis will be given to day use and short duration stay opportunities.

Selected scenic viewsheds outside the North Cascades Scenic Highway will be managed to provide quality Roaded Natural recreation and viewing opportunities by providing facilities for a variety of recreation activities in a retention to partial retention visual setting.

In areas allocated to a non-recreation emphasis, a variety of recreation opportunities will be provided, consistent with the objectives of the management area.

Developed sites will be provided where opportunities for meaningful recreation experiences are present. Forest Service managed sites which will receive emphasis are existing and proposed new sites in the North Cascades Scenic Highway, existing and proposed new sites and facilities at the Loup Loup Summit, fee campgrounds, existing and proposed new trailheads, existing and proposed new horse camps, and existing and proposed day-use opportunities. Primary management activities in these sites will be to develop and/or upgrade facilities to the appropriate site development level and standard, complete vegetative management plans, and manage the road system to manage use. Additional fee site opportunities and opportunities to develop partnerships to reduce

operation and maintenance costs will be explored (FOREST PIAN, APPENDIX A).

Developed sites operated by the private sector which will receive emphasis are the proposed Early Winters Alpine Winter Sports Site, Loup Loup Ski Area, Organization Sites, and Recreation Residence Tracts. The primary activities at these sites will be to coordinate development and upgrading of facilities as per approved as per development plans and special use authorizations, and encourage establishment of partner- ships.

Cross-country skiing, snowmobiling, and other winter sports opportunities will be provided in partnership with the Methow Valley Ski Touring Association, Okanogan Valley Nordic Ski Association, Highlands Ski Club, Okanogan County Snowmobile Advisory Board, and by encouraging outfitter-guides to provide services in areas where these activities are compatible with other resource objectives.

Segments of the Methow, Chewuch, Twisp, Lost, and Pasayten Rivers and segments of Wolf Creek have been recommended for designation as Wild and Scenic Rivers Segments of Canyon, Granite, and Ruby Creeks have been recommended for Further Study to determine suitability for designation. For those river segments recommended for designation, lands within 1/4 mile of each side of the river segment will be managed to maintain those characteristics for the potential classification for which the river segment was recommended for designation. For those fiver segments recommended for Further Study, lands within 114 mile of each side of the river segment will be managed to maintain those characteristics for the inventoried potential classification. If and when these rivers are designated by Congress, additional management guidelines will be developed as required.

The physical, social, and managerial setting in recreation management emphasis areas will be monitored to assure that recreation attributes that facilitate the desired opportunity setting are being protected. Sample field contacts will be made with visitors to identify their needs and expectations An overall capacity for visitor use has been estimated. During the next decade, this capacity estimate will be refined to enable managers to be more geographically specific. Off-road vehicle use will be monitored to minimize resource damage and/or conflicts with non-motorized users.

Coordination will occur with the USDI, National Park Service, Washington State Department of Wildlife, Washington State Parks and Recreation, Skagit Environmental Endowment Commission, Colville Confederated Tribes, Washington State Historic Preservation Office, Washington State Advisory Council on Historic Preservation, and other agencies to assure that recreation activities are compatible with the plans and policies of these agencies.

The FOREST PIAN, APPENDIX A, contains a listing of specific recreation projects. As additional projects are identified, they will be incorporated into this appendix as the first step in project implementation.

Visual Resource Program

All National Forest System lands have been assigned a Visual Quality Objective ranging from Preservation in Wilderness to Modification and Maximum Modification in areas where commodity resource management is emphasized.

The Forest will emphasize maintaining Retention Visual Quality Objectives in the North Cascades Scenic Highway, in Roadless Areas allocated to Semiprimitive recreation management, and in areas allocated to Mountain Goat Habitat. Even though timber harvest on a scheduled basis will not be permitted in these areas, other planned activities will be designed to maintain high visual levels.

Selected scenic viewsheds will be managed to maintain Retention and Partial Retention Visual Quality Objectives. The primary management activity in these areas will be to coordinate with other resource programs to assure that visual quality objectives are maintained. FOREST PIAN, APPENDIX A contains a listing of viewshed corridor schedules. These schedules will be prepared to better schedule management activities to meet viewshed objectives.

The remaining portion of the National Forest will be managed with Modification and Maximum Modification Visual Quality Objectives. In these areas, activities will be designed to blend, to the extent practicable, with the natural terrain to achieve aesthetic or other resource objectives. Higher visual quality levels may be provided in these areas, but will be limited to the immediate surroundings of the stand, recreation attraction, or feature of concern.

Opportunities to restore landscapes containing undesirable visual impacts to a desired visual quality' level will be identified.

Cultural Resource Program

The cultural resource program will be fully integrated with other resource activities The Okanogan National Forest will continue to inventory, evaluate, nominate, enhance, interpret, and protect historic and prehistoric sites.

Inventory will be conducted on approximately 15, 000 acres annually. Inventory will be largely responsive to other resource programs. Initially, emphasis will be placed on those areas which will be impacted by road construction, timber harvest, and other land disturbing activities. Inventory of other portions of the Forest will be accomplished as time and funds allow. The inventory process will operate under standards established in the Programmatic Memorandum of Agreement between Region 6 and the Washington State Historic Preservation Office, which provides for documentation of areas inventoried, recording of sites encountered, and site's potential eligibility for the National Register of Historic Places. The Forest will define the inventory process more clearly by preparing a Cultural Resource Inventory Strategy, which will focus field surveys to certain topographic situations, as well as provide for resurvey and increased management activity monitoring in certain circumstances.

Priority for evaluation will be for those cultural resources that may be affected by project activities. Although the National Register of Historic Places dominates the evaluation process and subsequent management of an eligible site, the Forest recognizes that sites not eligible for the National Register may have value as a non-renewable resource with opportunities for special management. In some cases, data recovery or excavation will be required to gather information for a preliminary evaluation. Other cases will require extensive research. The general contextual themes on the Okanogan National Forest will be prehistory, pre-settlement or Fur Trade, Mining Boom, Homestead Claims, Lumber Industry, and Conservation Ethic. Sites representing a single thematic focus, as well as incorporating a range of themes, will be selected as they become known during the inventory process. Additional themes or subthemes will be considered as the range of site types becomes identified. The Forest expects to have sites representing prehistory high elevation adaptation, variability in rock art, ethnic identity, and locational patterns. The history of the Forest Service in the area is a dominant theme.

Sites will be nominated to the National Register of Historic Places on an incidental basis, based on the level of funding received As the amount of uninventoried acreage decreases, more effort will be directed to nominating sites to the National Register.

Enhancement and interpretation opportunities will be directed to perpetuating cultural resource knowledge in mediums appropriate to the site, the setting, and the related theme. This will include kiosks, brochures, displays, and other forms suitable for popular presentation. There will also be informational transfer of a more technical nature for professional audiences. Enhancement projects will increase in either number of projects or funds spent yearly.

Protection will be undertaken as needed. Included will be monitoring on a scheduled basis the condition of sites on or eligible for the National Register of Historic Places, as well as highly visible isolated sites, such as in Wilderness. Protection measures will include routine maintenance, rehabilitation or restoration, withholding locational information, data recovery, and measures to increase public awareness of Historic Preservation laws and regulations. Advanced training In the Archaeological Resources Protection Act will be provided to selected personnel if warranted.

Coordination with Native American Tribes regarding cultural resources of suspected prehistoric origin and to identify key native plant gathering areas and species will occur. Consultation with the Washington State Historic Preservation Officer will occur as necessary.

FOREST PIAN, APPENDIX A contains a listing of specific cultural resource projects. As additional projects are identified, they will be incorporated into this appendix as the first step in project implementation.

Wildlife and Fish Program

Primary emphasis is coordination with other resources, especially timber, access,

recreation, fire, and range management, to improve or maintain habitat for wildlife and fish. Specific direction is summarized in the FOREST PLAN, CHAPTER 4 - Forestwide Standards and Guidelines and - Management Prescriptions. In general, the wildlife management strategies will design and manage habitat conditions for wildlife management indicator species and other represented wildlife Other management strategies and the Forestwide Standards and Guidelines will assure that acceptable habitat conditions are provided. Proper implementation of all strategies and Standards and Guidelines is the most important aspect to providing for the needs of wildlife and fish.

The Okanogan National Forest fully supports the anadromous fish restoration goals in the Columbia Basin as reflected in the US/Canada Pacific Salmon Interception Treaty, the Pacific Northwest Electric Power Planning, and the Conservation Act of 1980 During implementation of the Forest Plan and as baseline habitat inventories are completed, fish habitat production capabilities will be refined and desired future condition statements for individual drainages will be defined in specific habitat terms This will be a cooperative effort between the Forest, other State and Federal Agencies, Native American Tribes, and the public.

Habitat improvement projects to benefit wildlife and fish are scheduled and listed in the FOREST PLAN, APPENDIX 6. These projects are important, but small in relation to the extent and effects of timber, access, recreation, and range management activities. Several projects are dependent upon new surveys and inventories to better define how and where to apply needed habitat improvement. Examples include mountain goat and some fisheries projects where site specific surveys are needed first. Partnerships to complete habitat improvements will be pursued for all proposed projects and surveys.

Monitoring is a major part of implementing the Forest Plan. Details of the monitoring actions are in the FOREST PIAN, CHAPTER 5. Evaluation of outputs and conditions, as compared to estimated outputs in the final EIS and objectives of management strategies in the Forest Plan, will determine lf Wildlife and Fish trends are intended. Differences would provide the basis for changes in the plan direction.

Inventories and data gathering will be carried out to update existing information. A list of needs is located in the FOREST PLAN, CHAPTER 2. Habitats will be measured more accurately, changes in amount will be apparent (for monitoring of both activities and natural processes), and conditions will be ascertained. This is important given wildlife dependence on key habitats which are in limited amounts in many locales.

Fire Protection and Use Program

The fire management program on the Okanogan National Forest is a service program which supports the other resource management programs identified in the Forest Plan. Fire management includes all activities for the protection of resources and other values from wildfire, and the use of prescribed fire to meet land and resource management goals and objectives.

The fire protection program includes the activities of fire prevention, presuppression

management (e.g., planning, detection, dispatching, fire danger rating, fire weather forecasting, and training), suppression, fire reporting, and fire management analysis and planning. The collective application of all fire management activities required to meet the fire management direction for each management area, including fuels management, will be documented in the Fire Management Action Plan as an appendix of the Forest within one year after approval of the Forest Plan.

Fire management direction identifies an appropriate suppression response (i.e., Confinement, Containment, and Control) for each Management Area based on the cost of suppression compared against the expected resource loss.

Fuels management involves the planning, contracting, administration, and direct implementation of pre- scribed fire and other fuel treatment activities for the protection, maintenance, and enhancement of resource productivity. All fuel treatment activities are based on other resource needs, especially the harvesting of timber.

The overall goal of fire management is to minimize fire protection and fuels treatment program costs based on the value of planned resource outputs. Fire management's role is coordinate, plan, and implement fire protection, and fire use programs which are consistent with the Forest Plan and the Management Area prescriptions.

Implementation of fire management programs involves internal and external coordination. The internal coordination, i.e., with other resource programs, is principally accomplished through the Forest's timber sale program. Additional internal coordination is required for the planning and the implementation of prescribed fire activities in support of wildlife, range, and silvicultural plans and objectives. The annual fuel treatment program IS based on the timber harvest levels of the preceding years and the availability of other resource funding for the prescribed fire applications.

The majority of the external coordination involves reciprocal cooperative fire protection agreements with the Forest's neighboring fire suppression organizations. The Okanogan National Forest has formally entered into agreements with Washington State Department of Natural Resources; USDI, Bureau of Indian Affairs, Colville Confederated Tribes; USDI, National Park Service, North Cascades National Park; and the Province of British Columbia, British Columbia Forest Service. The Forest also contractually protects adjacent lands administered by the USDI, Bureau of Land Management.

The use of prescribed fire and fire suppression activities have a direct effect on the physical and biological environment, which includes air quality. Monitoring the effects of the fire management programs will determine if management practices are changing the physical and biological environment. The effects will determine f the cost of the program activities meet the Cost plus Net Value Change criteria associated with the implementation of the Forest's fire 5).

Air Quality Program

The effects of the Forest’s prescribed burning program on localized air quality will be

monitored based on the production of Total Suspended Particulates (TSP) emissions. The level of TSP emissions produced will be calculated annually, see FOREST PLAN, CHAPTER 5, by recording the fuel moisture, time of year, and total tons of available fuel at the time of burning. The overall objective of the fuels treatment program is to minimize the level of prescribed fire use and to concentrate on utilization as the primary method for meeting fuel management objectives. In most instances, on-site burning of wood residues should be a last resort fuel treatment method. The Forest will attempt to make reasonable progress in reducing its total TSP emission production.

Range Management Program

Grazing is an important use on the Okanogan National Forest. An annual average of 532,000 AUMs are estimated to be made available during the next decade. The exact amount will be determined in the revision of the allotment management plans (AMPs). The AMPs will be revised over the next ten years to comply with the Forestwide and Management Area Standards and Guidelines. The AMPs will be revised in priority order. The priority will depend on current level of administration, evidence of over- or under-utilization, and the degree the AMP is out of compliance with the Standards and Guidelines.

Transitory Range use is an important part of the total range use on the Okanogan National Forest. Transitory range accounts for about one-third of available range on the Forest Much of the transitory range results from timber harvest and decreases as the stands regenerate and grow towards maturity. Some lands will provide transitory range under intensive management for an entire rotation length. The goal of intensive transitory range management is to increase forage outputs to reduce grazing impacts to other areas, and to keep forest crown cover equal to or less than 50 percent.

Coordination in short-term and long-term planning between grazing livestock use and other resource management is the primary program focus. Use of coordinated resource management will help accomplish this and integrate lands of all ownerships under a single unit management plan where possible. The management plans and their updates will be accomplished within the planning period. A tentative priority listing is located in the FOREST PIAN, APPENDIX C.

Monitoring prescribed actions in AMPs is important to administer Forest rangelands. The monitoring plan located in the FOREST PIAN, CHAPTER 5.

Range projects will be accomplished in cooperation with the permittee.

Facilities Program

The Okanogan National Forest transportation system is planned, constructed, and operated to facilitate land and resource management objectives. Coordination with the objectives of wildlife, timber, range, recreation, and wilderness is essential in establishing transportation system program objectives. Specific direction for transportation system planning, construction, and operation is summarized in the FOREST PIAN, CHAPTER 4

- Forestwide Standards and Guidelines and - Management Prescriptions.

New road construction will be primarily for timber harvest operations and recreation facilities and limited to local roads. The arterial and collector roads are essentially In place, but concurrent use by commercial trucks and other types of vehicular traffic is not safe or economically practical on some of these roads. Those arterials and collectors at the lowest standards or with the highest demand for concurrent use by commercial trucks and other traffic types may require reconstruction or short segments of relocation and construction to a higher standard. These major activities are listed in the FOREST PLAN, APPENDIX F. Reconstruction will be required on some local roads for safety or economy of operations. Revegetation of existing temporary roads will be required consistent with the goals of the Management Area and 36 CFR 223.37.

Monitoring of the Forest Plan for roads will generally be accomplished through maintenance of the Forest Development Transportation Plan. The Forest Development Transportation Plan consists of the Primary Base Series Map (scale 1:24ooO), Transportation Inventory System (TIS), and the Forest Travel Plan. (The details of monitoring are in the FOREST PIAN, CHAPTER 5). The Forest Travel Plan will also be used to implement many of the requirements in the Standards and Guidelines and Management Prescriptions.

Two transportation and utility corridor have been designated on the National Forest. These are located along State Highway 20 and include seven miles at Loup Loup Pass and two miles at Wauconda Pass.

Forestwide Standards and Guidelines

The following is a list of Standards and Guidelines that apply Forestwide. These Standards and Guidelines are numbered.

Management Standards and Guidelines

1-1 Appropriate public involvement activities shall be conducted for the purposes of gaining information regarding the land and resource base upon which management decisions are made; to insure the Forest Service understands public needs, concerns, and values; and to inform the public of Forest Service management activities associated with implementing this Forest Plan
1-2 Appropriate coordination with other federal agencies, state and local governments, and Native American tribes shall occur on an ongoing basis in the planning, designing, executing, and monitoring of projects associated with implementing the Forest Plan.
1-3 An interdisciplinary integrated approach shall be used to plan, design, and monitor projects necessary to implement this Forest Land and Resource Management Plan. Line officers shall insure that appropriate disciplines are involved in each phase of project design and project execution.
1-4 Management activities shall be coordinated with permittees, contractors, and partners not to interfere, to the extent practicable, with other permitted activities
1-5 In addition to specific monitoring items discussed in the FOREST PIAN, CHAPTER

5, the responsible official and the subordinate line officers shall periodically conduct appropriate management reviews to assure compliance with the standards and guidelines contained in this chapter. During these management reviews, the responsible official and the subordinate line officers shall also evaluate and assess monitoring criteria, monitoring efforts, and resulting conclusions where appropriate. Management reviews shall include follow-up to assure completion of action items from previous reviews.
1-6 When wildfire or other activities result in substantial alteration to stand condition and the stand no longer meets the goals of the management area, rehabilitation shall occur.
1-7 Where management activities are to be monitored on the basis of 40,160, or 320 acres as described in this document, the intent is to reference surveyed sections, 1/4 sections, 1/16 sections and 1/2 sections (determined based on El& W1/2). Where portions of the Forest are unsurveyed, sections and portions of sections shall be projected from the nearest surveyed township corner.

Riparian Standards and Guidelines

Riparian ecosystems will be maintained as functioning systems, recognized as dynamic and treated as indicators of general forest health.

Class I, II, III

2-1 Riparian standards and guidelines apply to riparian ecosystems Forestwide but as a minimum they shall be applied to areas within 100 feet either side of class I, 11, and 111 stream channels, within 100 feet of lakes and ponds, and within 50 feet either side of class IV stream channels.
2-2 When management activities occur in riparian ecosystems, they shall be designed to rehabilitate, maintain, or enhance the riparian ecosystem, and the adjoining aquatic ecosystem. In the case of mineral activities that occur within riparian and aquatic ecosystems, operating plans shall include reasonable and operationally feasible requirements to protect, and upon completion of activities, rehabilitate riparian values.
2-3 Ground based skidding equipment may be allowed, on a case by case basis, to operate within the riparian ecosystem when the ground is frozen and there is an adequate snowpack. Landing areas shall not be located in riparian areas.
2-4 Maintain vegetation on streambanks that is needed to provide cover and streambank stability.
2-5 Riparian ecosystems that were adversely affected by past management activities shall be rehabilitated to as near a natural condition as possible.
2-6 New construction and expansion of existing recreation facilities, including trails, shall be designed and located to maintain riparian ecosystem values.
2-7 New road construction shall not occur in riparian ecosystems, except to cross. Material cleaned from a road right-of-way through a riparian area will be end hauled and placed outside the riparian area. Burn bays and other disposal areas, equipment parking areas, industrial camps, turn-arounds, and other features, except as needed for safety, that increase road width shall be placed outside of riparian areas.
2-8 Fireline construction in riparian ecosystems should use minimum impact suppression techniques.
2-9 In streamside management units (SMU) class I , II, and 111 streams, management

activities shall not degrade water quality for aquatic resources below current Washington State water quality standards (Chapter 173-210 WAC), except for temporary changes because of permitted activities.
2-10 Timber shall not be felled across the stream.
2-11 Logging equipment shall not operate in stream channels. All logs shall be fully suspended over the stream. Temporary crossings of the riparian ecosystem, including the stream channel, shall be avoided. Exceptions shall only be allowed If approved and located before construction.
2-12 Maintain stream shading necessary to meet temperature requirements of aquatic organisms historically found in the system.
2-13 Additions of unplanned human caused woody debris to the stream channel should be avoided.

Class IV

2-14 In streamside management units class IV streams, management activities shall not deteriorate water quality below current Washington State water quality standards for downstream SMU class I, II, and 111 streams. Water quality changes in class IV streams may involve some short-term temperature and turbidity increases.
2-10 Timber shall not be felled across the stream.
2-11 Logging equipment shall not operate in stream channels. All logs shall be fully suspended over the stream Temporary crossings of the riparian ecosystem, including the stream channel, shall be avoided. Exceptions shall only be allowed if approved and located before construction
2-13 Additions of unplanned human-caused woody debris to the stream channel should be avoided.

Fisheries Standards and Guidelines

3-1 Maintain or enhance biological, chemical, and physical qualities of Forest fish habitats.
3-2 Rehabilitate fish habitats where past management activities have adversely affected their ability to support fish populations Those fish habitats identified as having impacts from management activities shall be managed to show an upward trend with at least a 5 percent increase in condition per year until objectives for the habitat are met.[1]
3-3 Sediment in fishery streams shall be maintained at levels low enough to support good reproductive success of fish populations as well as adequate instream food production by indigenous aquatic communities to support those populations.

Fines - Fines (≤l.0mm) in spawning areas (pool tail-outs and glides) should be maintained at less than 20 percent as the area weighted average.

Macroinvertebrates - Maintain stream substrate so that at least three sediment

[1] 1 The habitat condition or conditions to be measured will be dependent on what aspect of the habitat has been affected by management activities Where habitat condition could not be reasonably expected to respond at this rate or could not respond on an average annual rate then the 5 percent rate could be modified as appropriate

sensitive species typical of the area are present, along with overall densities of at least 200 individuals per square meter.

3-4 Manage streams for high quality pool habitat consistent with the potential for the stream to provide it through natural or artificial means.[1]

Low Gradient (<3 percent) - Streams should maintain at least one high quality pool for every three channel widths (bank full width)

High Gradient (≥3 percent) - Streams should maintain at least one high quality pool for every six channel widths (bank full width).

3-5 Provide an average of at least 20 pieces of large wood per 1.000 lineal feet of stream channel on fish bearing streams to provide for aquatic needs.[2]

Class I & II Streams - Minimum length 35 feet and average diameter of 12 inches with at least 20 percent over 20 inches.[3]

Class III streams - Diameters the same as above but minimum length is based on one and a half times the channel width.

3-6 Manage riparian vegetation to provide sufficient trees near the stream channel to act as a source of large woody debris for future instream fish habitat needs.

Provide a minimum of 20 trees per acre with at least a 20 inch DBH for instream wood needs. [4]

3-7 Channel disturbing activities should be conducted at minimum flow, or outside of critical spawning and incubation periods.

3-8 Structures, such as bridges, culverts, and dams, placed in fish bearing streams shall be designed to allow upstream and downstream passage of both adult and juvenile fish. During construction utilize special installations (i.e. sediment traps, settling ponds, coffer dams, riprap, etc.) to keep sediment from reaching the stream.

Diversity Standards and Guidelines

4-1 Successional stage diversity shall be provided on all suitable timber lands managed with even-aged systems, in mixed conifer plant communities, by maintaining, at a minimum, the following amounts of each described successional stage. (Mature successional stage is not synonymous with old growth.) The amounts shall be maintained for each township:

TABLE 4-13 Successional Stages

Successional Stage	Amount Maintained for Each townships (%)

[1] (1) High quality pools occupy at least 50 percent of the low flow channel and have a maximum depth of at least 36 inches or at least 18 inches and 40 percent or greater instream cover

[2] (2) Large wood, in the channel, includes those pieces meeting size requirements and having at least 20 percent of their length within the vertical plane established perpendicular to the bank-full channel width. Size requirements may change based on the natural ability of a site to produce the specified size wood

[3] 3 Diameter refers to the mean diameter obtained as an average of the diameters of each end of the log.

[4] This standard describes a minimum average condition forestwide. Different standards may be developed for some subdrainages when warranted by site-specific conditions.

Grass/Forb	5%
Seedling/Sapling (1-4” DBH)	10 %
Poles (5-9” DBH)	10%
Young Forest (10-16” DBH)	5%
Mature (>16” DBH)	5%

4-2 Inherent diversity characteristics of naturally fragmented areas shall be maintained or rehabilitated. Sixty-five percent of the forested acres within each fragmented area shall meet the desired future condition prior to any additional timber harvest.

Old Growth and Guidelines

5-1 No scheduled or non-scheduled timber harvest or firewood collections shall be permitted in mixed conifer old growth stands. (See the final EIS, Glossary, for the definition of Mixed Conifer old growth stands.)
5-2 Within each township, five percent of the suitable acres producing greater than 20 cubic feet per acre per year in lodgepole pine stands shall be retained in an old growth condition.
5-3 Sufficient stands that have potential to develop old growth characteristics shall be identified as replacement old growth to provide for five percent of suitable forest land acres in an old growth condition in perpetuity.
5-4 Management requirements for species dependent on old growth or mature stands shall be provided. The species are:

TABLE 4-14 Species Dependent on Old Growth or Mature Stands

Species	Outside Classified Areas: Minimum Number of Areas to Maintain Viable Populations
Spotted Owl	8
Pileated Woodpecker	52
Pine Marten	106
Three-Toes Woodpecker	174

Wildlife Standards and Guidelines

Planning

6-1 Manage to provide a minimum of 30 percent cover (15 & thermal/l5% hiding) on deer summer range. Block sizes for summer thermal cover should range from 20 to 100 acres; and for hiding cover, from 5 to 40 acres. Cover should be spatially distributed across the landscape and provided on a gross area basis.
6-2 Habitat capability shall be assessed during project planning.
6-3 Partnership arrangements should be used to accomplish wildlife habitat improvements.
6-4 Recognize the established rights of the Colville Confederated Tribes’ members to hunt and fish on the North Half (Okanogan National Forest lands east of the Okanogan River).
6-5 Forestwide, dead tree habitat shall be managed to maintain primary excavator populations to at least 60 percent of their biological potential. In the lodgepole pine

working group where existing tree size prevents meeting the guidelines, patches containing the largest dead trees and replacement green trees shall be retained and distributed in the treatment unit to approach populations meeting 60 percent of their biological potential.
6-6 In riparian areas and old growth stands, dead tree habitat shall be managed to maintain primary excavator populations at 100 percent of their biological potential.
6-7 The following table displays the number of trees per acre, by diameter class needed to meet the various management levels:

TABLE 4-15 Standing Dead Trees Required per 100 acres

Dead Tree Management Level	≥10" DBH	≥" DBH	Total
60%	108	8	116
80%	144	11	155
100%	180	14	194

6-8 Manage disturbing activities so they occur outside of critical periods to protect wildlife (e.g., identified parturition areas, nesting sites, wintering areas).
6-9 Maintain continuous suitable habitat on ridgetops that provide wintering areas for blue grouse.
6-10 Active raptor nest sites shall be protected through the nesting season (until young are fledged).
6-11 Raptor nest sites should be protected. Depending on the individual situation and the biological needs of the species, a primary zone extending up to 500 feet from the nest site (750 feet from goshawk nest site) should be managed to provide raptor habitat. In some areas a secondary restricted activity zone may be necessary outside the primary zone: during the active nest season (through August), certain project activities may be limited. This secondary zone may extend up to one-quarter mile from the nest. When a nest site has not been occupied by a pair for five consecutive years, the site may be managed according to the direction of the management area Nests located after the project contract has been purchased will not be considered under this guideline.
6-12 For raptor nests located during contract activities, to the extent practicable, the following should apply: a) accipiters - major project activities (i.e, road construction, logging) within one-quarter mile of active accipiter nests should be avoided from the onset of nesting until the young are fledged (mid-August); b) other raptors - nest trees and four to five adjacent large trees (required for fledgling) should be protected during the active nesting season-the onset of nest construction until the young are fledged (mid-August); these trees may be harvested following current year nesting activities. Major activities (i.e., road construction, logging) should be postponed within 750 feet of the nest tree during incubation and until initial brooding are completed or until the young birds have established thermoregulation
6-13 Drainages containing hardwoods shall be managed to perpetuate hardwoods as a stand component during early conifer seral stages Hardwoods shall be perpetuated in associations where it is the climax forest community. After regeneration treatment in hardwood stands, discourage livestock browsing for at least two growing seasons.
6-14 Spotted owl locations outside of the established spotted owl habitat area (SOHA) network shall be evaluated for inclusion into the network. When the new location is near

an unoccupied SOHA and can still meet the dispersal requirements, it shall replace the unoccupied SOHA When the new location is a reproductive pair and the nearest network SOHA is unoccupied or a single bird (not reproductively successful), the network shall be modified to include the reproductive pair, when it meets the dispersal requirements.
6-15 When reproductive pairs of spotted owls are located outside of the established network, and the nearest network SOHA is also a reproductive pair, the new location shall be evaluated for inclusion in the network using an enlarged SOHA to include both breeding pairs.
6-1 6 Lands within all resource project proposals that are likely to affect spotted owl habitat within the area identified as spotted owl range on the Forest, shall be inventoried for the presence of spotted owls.
6-17 Threatened and endangered species shall be managed according to recovery plans. Coordinate management with US. Fish and Wildlife Service and the Washington State Departments of Fisheries and Wildlife.
6-1 8 Consultation with the US. Fish and Wildlife Service shall be initiated when threatened or endangered species may be affected by resource proposals.
6-19 Sensitive plants and animals should be protected.

Improvements

6-20 Structural and non-structural habitat improvements and maintenance shall be implemented to meet management goals

Cultural Resources Standards and Guidelines

Overview

7-1 Maintain a Forestwide cultural resources overview that Summarizes and compiles information on archaeology, on history, and on native plants used as food, medicine, and for religious purposes by Native American Tribes Specific locations may be confidential.

Inventory

7-2 Inventory all areas where ground disturbing activities are planned in order to discover all reasonably locatable cultural resources, and in accordance with an inventory Plan as specified in the Programmatic Memorandum of Agreement (PMOA) between Region 6 and the Washington State Historic Preservation Office.

Evaluation

7-3 Develop a schedule to evaluate cultural resources based on the criteria for eligibility to the National Register of Historic Places. First priority shall be for those cultural resources that may be affected by project activities.

Nomination

7-4 Nominate cultural resources that meet the appropriate criteria to the National Register of Historic Places. Nominations shall be scheduled incidentally until completion of the

forestwide inventory of cultural resources.

Protection

7-5 Protect eligible cultural resources from management activities by making reasonable efforts to avoid adverse impacts to the resources or develop a procedure to conserve the values through proper scientific methods or study.
7-6 Protect eligible cultural resources from vandalism and natural destruction. Protection plans may include physical protection, scientific study and collection, patrol and site monitoring, proper use or removal of signs, maintaining site anonymity, and gaining public understanding and support through education.
7-7 Non-eligible structures may be allowed to deteriorate through natural processes unless they are considered unsafe or their presence encourages other resource damage, in which case they shall be removed.

Management

7-8 Decisions on the maintenance level for eligible historic structures shall be based on an analysis of utility, interpretive value, public interest, site or area management goals, funding sources, existing agreements, etc.
7-9 Eligible historic sites shall be maintained or the resultant adverse effect mitigated.
7-10 Civilian Conservation Corps Era administrative structures included on or eligible for inclusion on the National Register of Historic Places shall be managed according to the stipulations in the PMOA for 'Management of Depression Era Structures on National Forest lands in Oregon and Washington.'
7-1 1 Manage to perpetuate native plant species used for food, medicine, and religious purposes by Native American Tribes consistent with the goals of the Management Area.

Interpretation

7-12 Provide for the interpretation of cultural resources for educational purposes to the extent consistent with protection, worth public interest, and with goals of the Management Area.

Coordination

7-13 Coordinate the long-term management of cultural resources with the State Cultural Resource Plan and other agencies as necessary.
7-14 Coordinate with Native American Tribes regarding cultural resources of suspected prehistoric origin and to identify key native plant gathering areas and species.
7-15 Information about planned project activities shall be presented to Native American Tribes for coordination about effects to traditional religious sites.

Consultation

7-16 Consultation with the Washington State Historic Preservation Officer shall follow the procedures in the PMOA between Region 6 and Washington State Office of Archaeology and Historic Preservation.

Recreation Standards and Guidelines

Management Prescriptions

The National Forest System land within the Okanogan National Forest has been divided into 16 Management Areas, each with different management goals, resource potential, and limitations. The Management Areas are shown on the accompanying map, which can be used for reference. The Management Area maps of record will consist of a set of larger scale (7.5 minute quad) maps on file in the Forest supervisor's Office. These maps will be constructed upon selection of a final Forest Plan.

Except for Congressionally established boundaries and Research Natural Areas, the Management Areas boundaries are not firm lines and do not always follow easily found topographic features, such as major ridges. The boundaries represent a transition from one set of opportunities and constraints to another with management direction established for each.

This selection describes the prescriptions for each management Area. The prescriptions consist of a goal statement, description, desired future condition, activities and Standards and Guidelines. These Standards and Guidelines are numbered for reference purposes. The numbers are arranged such that they reflect: 1)the management area to which they pertain; 2) the resource area (as assigned in Forestwide Standard and Guidelines); and 3) Standard and Guideline identifier.

[Diagram goes here]

Prescription 4

Goal Statement: Provide semiprimitive nonmotorized recreation opportunities during summer and fall seasons. Semiprimitive motorized recreation opportunities may be provided during the winter and spring seasons.
Description: This applies to Management Area 4.
Desired Future Condition: Recreation opportunities will be provided in areas characterized by a predominately natural or naturally appearing environment. Users will have a high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of outdoors skills in an environment that offers challenges and risk. Interaction between users will generally b e low. Areas will be managed with subtle on-site controls and restrictions.

Recreation Standards and Guidelines: Planning

MA4-8A The visual quality objective is retention. Exceptions are permitted for treatment of insects and disease as allowed under this strategy.
MA4-8B Semiprimitive nonmotorized recreation opportunities shall be provided during summer and fall seasons. Semiprimitive motorized recreation opportunities should be provided during winter and spring seasons, but may be restricted to designated routes or areas.

Recreation Standards and Guidelines: Facilities

MA4-8C Facilities shall be maintained to standard.
MA4-8D Development scale 1 and 2 facilities needed for resource protection or to maintain or enhance recreation opportunities shall be reconstructed and constructed.

Recreation Standards and Guidelines: Use Administration

MA4-8E The numbers and types of encounters between users should be controlled.

Recreation Standards and Guidelines: Trails

MA4-8F Trails shall be operated and maintained to the difficulty level appropriate to the target nonmotorized user group.
MA4-8G Trails or trail segments not needed to meet management Area goals should be allowed to brush in or be returned to as near a natural condition as possible.
MA4-8H Mechanized equipment may be used for trail maintenance.
MA4-8I Trails should be reconstructed for resource protection, public safety, or to maintain or enhance recreation opportunities. New trails may be constructed for resource protection, maintenance, or enhancement of recreation opportunities.

Range Standards and Guidelines

MA4-11A Manage commercial livestock to reduce conflicts with recreationists.

Timber Standards and Guidelines

MA4-20A Scheduled timber harvest shall not occur.
MA4-20B Sanitation and salvage harvest may occur based on the following criteria: 1) when necessary to protect or enhance the recreation and scenic values in the area or in adjacent Management Areas, and 2) when necessary to prevent the spread of disease or insects to adjacent Management Areas where timber production is a primary emphasis and when protected volume losses would be substantial.

Roads Standards and Guidelines

MA4-17A Roads shall not be constructed except where necessary to provide reasonable minerals access. Existing roads shall be inactivated.

Protection Standards and Guidelines: Fire and Fuels

MA4-19A The preferred suppression strategy is confinement. The Appropriate Suppression response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy shall be used if wildfires threaten capital investments, Managements Areas with more restrictive fire management direction, or if resource damage is likely to be unacceptable.
MA4-19B To the extent practicable: 10 use minimum impact suppression techniques, 2) use indirect attack techniques such as natural fuelbreaks, and changes in vegetative type

and topography, and 3) minimize disturbances resulting from all phases and types of suppression.
MA4-19C Prescribed fire may be used to improve wildlife habitat conditions or reduce wildfire hazards.
MA4-19D Activity created slash should be treated to reduce risk to investments and the public.

Protection Standards and Guidelines: Insects and Disease

MA4-19E Insects and diseases may be suppressed when necessary to protect the recreation and the scenic values in the area or in adjacent Management Areas, when necessary to prevent the spread of insects and disease to adjacent management areas where timber production is a primary emphasis ad when projected volume losses would be substantial.
MA4-19F Past populations shall be monitored to assure that there is not an insect buildup that could spread to adjacent Management Areas.

Prescription 4M

Goal Statement: Provide year-round semiprimitive motorized recreational opportunities.
Description: This applies to Management Area 4M.
Desired Future Condition: Recreation opportunities will be provided in areas characterized by a predominately natural or naturally appearing environment. Users will have a moderate probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of outdoor skills in an environment that offers challenge and risk. Opportunities to have a high degree of interaction with the natural environment exist. Concentrations of users will generally be low. Areas will be managed with subtle on site controls and restrictions Motorized use will be allowed year round on designated trails, roads, or areas. New roads will not be constructed except to provide reasonable mineral access Designated existing roads will be maintained at a standard to encourage high clearance vehicles, ORVs, or ATVs. Designated trails will be maintained to a level that encourages motorized trail vehicles.

Recreation Standards and Guidelines: Planning

MA4M-8A The visual quality objective is retention. Exceptions are permitted for treatment of insects or disease as allowed under this strategy.
MA4M-8B Semiprimitive motorized recreation opportunities shall be provided year round on designated trails, existing roads, and areas. Semiprimitive nonmotorized recreation opportunities should be provided on a case by case basis.

Recreation Standards and Guidelines: Facilities

MA4M-8C Facilities shall be maintained to standard.
MA4M-8D Development scale 1 and 2 facilities needed for resource protection or to maintain or enhance recreation opportunities shall be reconstructed and constructed.

Recreation Standards and Guidelines: Use Administration

MA4M-8E The numbers and types of encounters between users should be controlled.

Recreation Standards and Guidelines: Trails

MA4M-8F Designated trails shall be maintained to a level that encourages motorized trail vehicles. Remaining system trails shall be operated and maintained to the difficulty level appropriate to the target nonmotorized user group.
MA4M-8G Trails or trail segments not needed to meet Management Area goals should be allowed to brush in or be returned to as near a natural condition as possible.
MA4M-8H Trails should be reconstructed for resource protection, public safety, or to maintain or enhance recreation opportunities. New trails may be constructed for resource protection, maintenance, or enhancement of recreation opportunities.

Range Standards and Guidelines

MA4M-11A Manage commercial livestock to reduce conflicts with recreationists.

Timber Standards and Guidelines

MA4M-20A Scheduled timber harvest shall not occur.
MA4M-208 Sanitation and salvage harvests may occur based on the following criteria: 1) when necessary to protect or enhance the recreation and scenic values in the area or in adjacent Management Areas, and 2) when necessary to prevent the spread of insects or disease to adjacent Management Areas where timber production is a primary emphasis and when projected volume losses would be substantial.

Roads Standards and Guidelines

MA4M-17A Roads shall not be constructed. except where necessary to provide reasonable minerals access Existing roads shall be maintained to encourage ORVs, ATVs, or high clearance vehicles.

Protection Standards and Guidelines: Fire and Fuels

MA4M-19A The preferred suppression strategy is confinement. The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy shall be used if wildfires threaten capital investments, Management Areas with more restrictive fire management direction, or if resource damage is likely to be unacceptable.
MA4M-19B To the extent practicable: 1) use minimum impact suppression techniques, 2) use indirect attack techniques such as natural fuelbreaks, changes in vegetative type and topography, and 3) minimize disturbances resulting from all phases and types of suppression.
MA4M-19C Prescribed fire may be used to improve wildlife habitat conditions or reduce wildfire hazards.
MA4M-19D Activity created slash should be treated to reduce risk to investments and the

public.

Protection Standards and Guidelines: Insect and Disease

MA4M-19E Insects and diseases may be suppressed when necessary to protect the recreation and the scenic values in the area or in adjacent Management Areas, or when necessary to prevent the spread of insects and disease to adjacent Management Areas where timber production is a primary emphasis and when projected volume losses would be substantial.
MA4M-19F Pest populations shall be monitored to assure that there is not an insect buildup that could spread to adjacent Management Areas.

Prescription 5

Goal Statement: Provide opportunities for recreation and viewing scenery in a roaded natural setting with a visual quality objective of retention or partial retention.
Description: This applies to Management Area 5. The visual quality objective will be based on variety class, distance zone, and sensitivity level.
Desired Future Condition: Recreation opportunities will be maintained and enhanced within this roaded recreation area by maintaining a predominately natural appearing landscape. Even-aged stands, and stands representing different age classes, species mix, and with variable structure. will be found across the Forest. Users will have a moderate to low probability of experiencing isolation from the sights and sounds of humans and a moderate to high probability of experiencing affiliation with other groups. Interaction between users ranges from low to high, but evidence of other users is prevalent.

Recreation Standards and Guidelines: Planning

MA5-8A The visual quality objective is retention where the following characteristics occur:

Table 4-21: Retention Visual Quality Objective in Prescription 5

Variety Class	Sensitivity Level	Distance Zone
A	1	All
B	1	Foreground

An exception is along the Middle Salmon Boulder Creek Road where the visual quality objective is partial retention.

MA5-8B The visual quality objective is partial retention where the following characteristics occur:

TABLE 4-22: Partial Retention Visual Quality Objective in Prescription 5

Variety Class	Sensitivity Level	Distance Zone
A	2 & 3	All
B	1	Middle ground & background
C	2	Foreground

C	1	Foreground & middle ground

MA5-8C Roaded natural recreation opportunities shall be provided.
MA5-8D Integrated viewshed and corridor schedules for vegetation management shall be completed.

Recreation Standards and Guidelines: Facilities

MA5-8E Facilities shall be maintained to standard.
MA5-8F Development scale I and 2 facilities needed for resource protection or to maintain or enhance recreation opportunities shall be reconstructed and constructed.

Recreation Standards and Guidelines: Trails

MA5-8G Trails should be reconstructed for resource protection or public safety purposes, or to enhance recreation opportunities.
MA5-8H New trails may be constructed as access to special features, to classified areas, to recreation management emphasis areas, or to enhance recreation opportunities.
MA5-8I Existing trails necessary as access to special features, to classified areas, to recreation management emphasis areas, or to enhance recreation opportunities shall be operated and be maintained to the difficulty level appropriate to the target user groups.
MA5-8J Trails or trail segments not needed to meet Management Area goals shall be allowed to brush in or be returned to as near a natural condition as possible.

Wildlife Standards and Guidelines

MA5-6A All identified deer winter range should be managed for the following well-distributed cover:

Table 4-23. Percent of Deer Winter Range Cover by Area in Prescription 5

Winter Range Cover	East of the Okanogan River	Methow and Other
Snow intercept thermal	≥ 30%	≥ 15%
Winter thermal	≥ 10%	≥ 25%
Hiding	≥ 20%	≥ 0%
Total	≥ 60%	≥ 40%

MA5-6B Where natural forest vegetation is not present to support optimal cover amounts, manage existing vegetation to approach cover objectives on a sustained basis.
MA5-6C Where potential is not present as a result of previous management activities, manage to attain these percentages.
MA5-6D Minimum cover amounts shall be 30 percent (15 percent hiding and 15 percent summer thermal cover) of the gross Management Area acreage and well distributed.

Range Standards and Guidelines

MA5-11A Manage commercial livestock to reduce conflicts with recreationists.
MA5-11B Eighty-five percent of the annual available browse on winter range shall be for wildlife and 15 percent for domestic livestock. (Refer to forage utilization standards in Forest Plan, Chapter 4: Forestwide Standards and Guide.

Timber Standards and Guidelines: Planning

MA590A Timber activities shall be designed to maintain or enhance roaded natural recreation opportunities and to provide a vegetative condition that meets the visual quality objective in perpetuity.
MA5-206 In retention areas, a) provide 15 percent of the stands or 15 percent of the foreground area in trees that exceed 24' DBH in mixed confer stands and 10' DBH in managed lodgepole pine stands, and b) provide 10 percent of the stands or 10 percent of the middle ground area in trees that equal or exceed 18' DBH in mixed conifer stands and 7' DBH in managed lodgepole pine stands.
MA5-20C In partial retention areas timber activities shall be designed to provide at least 30 percent of the stands in foreground with trees equaling or exceeding 16' DBH in mixed conifer stands and 7' DBH in managed lodgepole pine stands.
MA5-20D Firewood gathering should be consistent with the goals of this Management Area.

Timber Standards and Guidelines: Harvest

MA5-20EEven-aged methods shall be applied in the Lodgepole Pine Working Group. Even-aged methods should generally be applied in the Moist and Dry Productive Working Groups, except that uneven-aged methods may be applied where sire specific analysis determines they will best meet management direction.
MA5-20F In even-aged silvicultural systems where seed tree and shelterwood cutting is practiced, consistent with insect and disease conditions, overwood should not be removed until dominant trees reach 20 feet in height.
MA520G Rotation lengths are based on meeting the target tree sizes.
MA5-20H A created opening for visual resource management purposes is defined as an area where dominant trees are less than 20 feet tall; this includes clearcuts and seed tree harvests.
MAS-201 Sanitation and salvage harvests shall be allowed on a case by case basis to protect the stand.

Timber Standards and Guidelines: Stand Improvement

MA5-20J Precommercial thinning may be prescribed to meet the goals of the Management Area.

Timber Standards and Guidelines: Sale Preparation

MA5-20K Operating season for logging and post sale operations shall be restricted to protect the road, soils, water, and recreation resources To protect deer in winter

(December through March) and to protect fawning (June), the operating season may be restricted on a case by case basis in deer winter range and fawning areas.

Timber Standards and Guidelines: Tree Improvement

MA5-20L Select Trees shall be identified to the extent necessary to ensure they can be relocated. Excess marking shall be avoided.

Roads Standards and Guidelines

MA5-17A Arterial and collector roads should be reconstructed and/or operated, and maintained to encourage use by recreationists in highway vehicles. Concurrent use by recreationists and commercial hauling shall be accepted
MA5-17B Generally, local roads should be reconstructed, operated, and maintained to: 1) encourage highway vehicle access to developed recreation sites (e.g., campgrounds and trailheads); 2) encourage high clearance vehicle and discourage passenger cars on other roads. During commercial hauling activities, public access should be discouraged. Low standard local roads may be designated open to ATV and O W use and highway vehicles shall be eliminated on these routes.

Protection Standards and Guidelines: Fire and Fuels

MA5-17C To limit wildlife disturbance, local road dens9 shall be limited to three miles of road open to motorized use (not including snow machines) per square mile of discrete indvidual Management Area.
MA5-17D Local roads may be constructed to meet Management Area goals for additional public recreation needs or to satisfy other multiple use needs. Transportation plans shall consider future entries.
MA517E On deer winter range, access for motorized vehicles shall be prohibited December 1 through March 31 except for designated through routes. Winter haul may be permitted provided the goals of the Management Area are met. East of the Okanogan River, winter logging and hauling should not be restricted but access by motorized vehicles not associated with logging/hauling and administrative use shall be prohibited December 1 through March 31 except on designated through routes.
MA5-19A The preferred suppression strategy is control.
MA5-19B Limit the number of acres burned by wildfire and minimize evidence of suppression action along major transportation routes and key recreation areas.
MA5-19C Use of prescribed fire should meet the visual quality objective within three years of application.
MA5-19D Recreation, visual, and wildlife values shall be key considerations in determining overall fuel treatment level and methods.

Protection Standards and Guidelines: Insects and Disease

MA519E Insects and diseases shall be suppressed when outbreaks threaten managed resources and/or users. Suppression methods that minimize site disturbance should be used.

MA5-19F Stands shall be managed to control insect and disease problems and to control outbreaks, to the extent practicable.
MA5-176 Stands where uneven-aged management IS applied shall be generally free of serious pathogens such as root rots and dwarf mistletoes.

Prescription 7

Goal Statement: Preserve the high quality scenic setting within the North Cascades Scenic Highway, while providing recreational opportunities.
Description: This applies to Management Area 7.
Desired Future Condition: The existing scenic values of the area will be preserved while allowing for moderate expansion of recreation facilities with an emphasis on day use and short duration stay opportunities.

Recreation Standards and Guidelines: Planning

MA7-8A The visual quality objective is retention. Exceptions are permitted for treatment of insects and/or disease as allowed under this strategy.
MA7-8B Roaded natural and semiprimitive non-motorized recreation opportunities shall be provided: except that semiprimitive motorized recreation opportunities shall be provided on designated routes and areas when the area is snow covered.
MA7-8C Vegetative management plans shall be completed for all developed sites. Vegetative management may include tree removal, thinning, planting, and other cultural activities necessary to enhance or maintain the recreation resource.

Recreation Standards and Guidelines: Facilities

MA7-8D All facilities shall be maintained to standard. Developed sites should be at development scale 3 to 5.
MA7-8E Reconstruction or expansion of existing sites and facilities outside developed sites and construction of new sites and facilities outside developed sites shall only be accomplished to maintain or to enhance recreation opportunities or when occupancy of existing sites exceeds 40 percent of theoretical capacity.

Recreation Standards and Guidelines: Trails

MA7-8F Easy Pass, Rainy Lake, Lake Ann, Blue Lake, and Washington Pass Trails shall be closed to horse use.
MA7-8G Trails necessary as access to special features, to classified areas, to recreation management emphasis areas, or to enhance recreation opportunities shall be operated and be maintained to the difficulty level appropriate to the target user group.
MA7-8H Trails or trail segments not needed to meet Management Area goals should be allowed to brush in or be returned to as near a natural condition as possible.
MA7-8I New trails may be constructed to access special features, to classified areas, to recreation management emphasis areas, or to enhance recreation opportunities.

Wildlife Standards and Guidelines

MA7-6A Wildlife habitat improvements consistent with visual objectives shall be allowed.

Range Standards and Guidelines

MA7-11A Domestic livestock grazing shall not be permitted. Recreation livestock grazing shall be permitted except for the meadows at Rainy Lake turnoff and Whistler Basin. Users should be encouraged to use weed-free feed.

Timber Standards and Guidelines

MA7-20A Scheduled timber harvest shall not be permitted. Selective removal of individual or groups of trees shall be prescribed on a non-scheduled basis to enhance scenic or recreation opportunities or to accomplish vegetative management objectives at developed sites.
MA7-208 Firewood gathering shall be permitted for on site recreational activities and shall be limited to dead and down material.

Lands Standards and Guidelines

MA7-16A Utility structures shall not be permitted unless a Federal Energy Regulatory Commission permit is granted Utility structures shall be consistent with the visual or recreation objective.
MA7-16B Signing, structures, and highway improvement needs shall be coordinated with the Washington State Department of Transportation.
MA7-I 6C All Federal Energy Regulatory Commission applications inconsistent with preserving the visual resource shall be recommended for denial All small hydro proposals shall be analyzed individually. Cumulative impacts with other proposed or existing small hydros will be considered.
MA7-16D The existing mineral withdrawal shall be reviewed under the Withdrawal Review Program. Some modifications of the existing withdrawal shall be recommended to protect scenic, recreation, fisheries, and wildlife values: to optimize mineral resource availability: and to provide feasible administration.

Roads Standards and Guidelines

MA7-17A Local roads needed for recreational activities shall be reconstructed and/or operated and maintained to encourage highway vehicles All other roads shall be evaluated and inactivated as feasible.
MA7-17B New road construction shall only be allowed to provide access to new developed sites or to provide reasonable access to mineral claims and/or leases. Route selection shall preserve scenic values.

Protection Standards and Guidelines: Fire and Fuels

MA7-19A The preferred suppression strategy is confinement. The Appropriate

Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy shall be used if wildfires threaten capital investments, Management Areas with more restrictive fire management direction, or if resource damage is likely to be unacceptable.
MA7-19B To the extent practicab1e:l) use minimum impact suppression techniques, 2) use indirect attack techniques such as natural fuel breaks and changes in vegetative type and topography, and 3) minimize disturbances resulting from all phases and types of suppression.
MA7-19C Management activity created slash shall be treated to meet scenic/visual objectives and to prevent unnatural fire hazard.

Protection Standards and Guidelines: Insects and Disease

MA7-19D Suppression may be allowed where insects and diseases would adversely affect achieving the resource goals in the area.

Prescription 8

Goal Statement: Preservation of naturally occurring physical and biological units as Research Natural Areas (RNA) where natural conditions are maintained insofar as possible for the purpose of: 1) comparison with those lands altered by management for baseline monitoring; 2) education and research on plant and animal communities; and 3) preservation of gene pools for typical as well as threatened and endangered plants and animals.
Description: This applies to Management Area 8.
Desired Future Condition: Plant communities will be allowed to exist and develop without human intervention to provide representative examples of unaltered communities. Animal populations native to the area will be allowed to exist.

Recreation Standards and Guidelines: Planning

MA8-8A The visual quality objective is retention.
MA8-8B Semiprimitive nonmotorized recreation opportunities shall be provided in the Maple Mountain Research Natural Area. Roaded natural and semiprimitive nonmotorized recreation opportunities shall be provid3ed in the Wolf Creek, Roger Lake, and Chewuch Research Natural Areas during the summer and fall seasons. Semiprimitive motorized recreation opportunities may be provided on designated routes and areas during the winter and spring seasons.

Recreation Standards and Guidelines: Use Administration

MA8-8D Education use of a RNA will generally be directed toward the graduate level, but may be approved for any educational level.
MA8-8E Avoid publicizing research natural areas on recreation maps and in recreation brochures.
MA8-8F On site interpretative signs ay be installed where they contribute to better understanding of or protection for the research natural area.

Recreation Standards and Guidelines: Trails

MA8-8G Now new trails shall be constructed, except those needed for research purposes. Existing trails may be allowed where the goals for the RNA are not compromised.

Fish and Wildlife Standards and Guidelines

MA8-6C Control of animal populations may be considered where they threaten the RNA goals.
MA8-6D Habitat improvement projects may be approved f they meet the goals of the RNA.

Range Standards and Guidelines

MA8-IIA Where grazing is needed to maintain the vegetative communities, the grazing objectives shall be defined in the establishment report,

Timber Standards and Guidelines

MA8-20A Scheduled and non-scheduled timber harvest, including wood gathering activities shall be prohibited.

Lands Standards and Guidelines

MA8-16ATemporary gauging stations and instrument shelters may be approved by the Pacific Northwest Research Station Director.
MA8-1 6B Rights-of-way easements existing prior to the establishment of the RNA shall be honored. Upgrading these facilities shall be discouraged where they compromise the goals of the RNA.
MAS1 6C Recommend against Federal Energy Regulatory Commission licenses or permits that compromise the goals of the RNA.
MA8-16D The proposed Maple Mountain, Chewuch, and Roger Lake Research Natural Areas shall be recommended for withdrawal from locatable mineral entry upon approval for their inclusion into the RNA system.

Facilities Standards and Guidelines

MA8-18A No new road construction should be allowed unless it is developed for preserving or enhancing the RNA values.
MA8-18B Hazard tree felling is permitted along trails or roads for safety. Felled trees shall remain in place, unless lying across a trail or road.
MA8-18C Buildings, other than temporary gauging stations and instrument shelters, shall be prohibited Allow existing buildings to deteriorate without replacement.

Protection Standards and Guidelines: Fire and Fuels

MA8-19A The preferred suppression strategy is confinement. The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is

a viable option. A contain or a control strategy shall be used f wildfires threaten capital investments, Management Areas with more restrictive fire management direction, or resource damage is likely to be unacceptable.
MA8-19B Minimum impact suppression techniques shall be used for all suppression activities The use of chemical fire retardants should be avoided where possible.
MA8-19C Prescribed fire may be used to perpetuate the ecosystems of research natural areas if consistent with the purposes for which the RNA was established. Either natural or planned ignitions may be used. Prescriptions should be designed to mimic natural fire.

Protection Standards and Guidelines: Insects and Disease

MA8-19D Where pest management activities are prescribed, they shall be specific against the target organism and induce minimal impact to other components of the ecosystem.

Prescription 10

Goal statement: Optimize habitat condition and perpetuate a healthy mountain goat population.
Description: This applies to Management Area ID.
Desired Future Condition: Mountain goat habitat will be maintained or improved by restricting timber activities, recreation use which is not compatible with mountain goat use, and access. Habitat will be managed to provide habitat diversity and produce cover and forage.

Recreation Standards and Guidelines: Planning

MA10-8A The visual quality objective is retention in sensitivity level 1 road and trail corridors and modification in all other areas outside the North Cascades Scenic Highway.
MA1 0-8B Roaded natural and semiprimitive non-motorized recreation opportunities should be provided. Semiprimitive motorized recreation opportunities shall be limited to the lower portions of trails #416 and 8431.

Recreation Standards and Guidelines: Facilities

MA108C There shall be no expansion of existing sites and facilities.
MA10-8D New facilities shall not be provided.

Recreation Standards and Guidelines: Use Administration

MA10-8E Recreation special use authorizations for helicopter flights over or landing in areas where goats will be adversely disturbed shall not be issued.

Recreation Standards and Guidelines: Trails

MA10-8F New trail access that encourages use during wintering and kidding season shall not be provided.

Wildlife Standards and Guidelines

MA10-6A Project planning and implementation shall be directed primarily at maintenance of existing cover and forage values. Vegetative manipulation by fire shall occur only after careful study of the habitat in relation to seasonal habits and needs of mountain goats in specific locations. Probable benefits to mountain goats must be assured and justified on a case by case basis.
MA10-6B Cavity nester habitat shall be managed to provide at least 80 percent of potential woodpecker population size where naturally available.

Range Standards and Guidelines

MA10-11A Livestock use should not be increased over existing permitted numbers.
MA10-11B Use of sheep allotments in the goat range shall continue as long as there is a demand. When no interest is expressed to maintain sheep on the allotment for three years, the permit shall be permanently discontinued.

Timber Standards and Guidelines

MA10-20A Scheduled and non-scheduled timber harvest shall be prohibited.

Roads Standards and Guidelines

MA10-17A Motorized traffic shall be prohibited, except for designated through routes.

Protection Standards and Guidelines: Fire and Fuels

MA10-19A The preferred suppression strategy is confinement.
MA10-19B Contain or control wildfires if they threaten resources, capital investments, or enter areas with a more restrictive fire management prescription.
MA10-19C Fuels treatment, including the use of prescribed fire, shall provide for the retention and/or enhancement of key wildlife habitat.
MA10-19D Treat activity fuels to reduce risk to investments and the public.

Protection Standards and Guidelines: Insects and Disease

MA10-19E Insects and diseases may be suppressed when necessary to protect the wildlife habitat values in the area, or when necessary to prevent the spread of insects and diseases to adjacent Management Areas where timber production is a primary emphasis and when projected volume losses would be substantial.

Prescription 11

Goal Statement: Manage bighorn sheep habitat to optimize habitat conditions and perpetuate a healthy population.
Description: This applies to Management Area 11.
Desired Future Condition: Bighorn sheep habitat on the Okanogan Forest, Mt. Hull area

will be managed to maintain a diversity of seral stages to provide cover and forage for bighorn sheep and to provide timber products at a reduced level. Use of the area by domestic sheep is not compatible with the goals of the management area.

Recreation Standards and Guidelines

MA11-8A The visual quality objective is retention where the following characteristics occur:

TABLE 4-24: Retention Visual Quality Objective in Prescription 11

Variety Class	Distance Zone
A	All
B	Foreground

MA11-8B The visual quality objective is partial retention where the following characteristics occur.

TABLE 4-25: Partial Retention Visual Quality Objective in Prescription 11

Variety Class	Distance Zone
B	Foreground & middleground

MA11-8C Roaded natural recreation opportunities shall be provided within view of sensitivity level 1 roads. Semiprimitive non-motorized recreation opportunities shall be provided on the remaining area.

Wildlife Standards and Guidelines

MA11-6A Project planning and implementation shall be directed primarily at maintenance and improvement of cover and forage values. Vegetative manipulation by timber or fire shall occur only after careful study of the habitat in relation to seasonal habits and needs of bighorn sheep.

MA11-6B Manage all identified bighorn sheep habitat for the following well distributed cover:

TABLE 4-26. Percent of Bighorn Sheep Winter

Winter Range Cover	
Snow intercept thermal	≥ 20%
Winter thermal	≥ 15%
Hiding	≥ 5%
Total	≥ 40%

MA11-6C Where natural vegetation is not present to support optimal cover amounts, manage existing vegetation to approach cover objectives on a sustained basis. Where potential is not present as a result of previous management activities, manage to attain these percentages.

MA11-6D Cavity nester habitat shall be managed to provide at least 80 percent of potential woodpecker population size.
MA11-6E Non-structural improvements should be implemented where needed.
MA11-6F Structural improvements and maintenance should be implemented where needed.

Range Standards and Guidelines

MA11-11A Eighty-five percent of the annual available browse shall be reserved for wildlife and 15 percent for domestic livestock. (Refer to forage utilization standards in the FOREST PIAN, CHAPTER 4 - Forestwide Standards and Guidelines).
MA11-11B Domestic sheep grazing shall not occur.

Timber Standards and Guidelines: Planning

MAl1-20A Scheduled and non-scheduled timber harvests shall be designed to perpetuate bighorn sheep habitat and to address current habitat needs.
MA11-20B Prohibit the use of natural or created slash for firewood

Timber Standards and Guidelines: Harvest

MA11-20C Even-aged management shall be practiced in the Moist Productive, Dry Productive, and Lodgepole Pine Working Groups. Even-aged or uneven-aged management may be practiced in the Low Productive Working Group.
MA11-20D A created Opening for wildlife management purposes is defined as an area where dominant conifer regeneration is less than six feet tall following clearcutting, seed tree cutting, or overstory removal cutting.
MA11-20E Rotation length shall be based on meeting structural bighorn sheep habitat needs.
MA11-20F Overstory removal of shelterwood and seed trees shall be scheduled to 1) prevent unacceptable damage to regeneration from logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.

Timber Standards and Guidelines: Reforestation

MA11-20G Western larch composition in stands to be managed for cover should not exceed 20 percent.

Timber Standards and Guidelines: Stand Improvement

MA11-20H Precommercial thinning may be prescribed to provide habitat conditions for bighorn sheep.

Timber Standards and Guidelines: Sale Preparation

MA11-20I Operating season for logging and post sale operations shall be restricted, when necessary to protect roads, soil, water, bighorn sheep, and deer winter range fawning areas and lambing areas To protect fawning (June), lambing (May). and deer during

winters (December through March), the operating season may be restricted on deer winter range, fawning areas, and lambing areas.

Roads Standards and Guidelines

MA11-17A Access by motorized vehicles shall be eliminated or prohibited year- round, except when and where designated open. Winter commercial hauling shall be decided on a case by case basis.

Protection Standards and Guidelines: Fire and Fuels

MA11-19A The preferred suppression strategy is contain control.
MA11-198 Limit acres burned by habitat damaging wildfires.
MA11-19C Fuels treatment, including the use of prescribed fire, shall provide, where practicable, for the retention or improvement of key wildlife habitat.

Protection Standards and Guidelines: Insects and Disease

MA11-19D Suppress insects and diseases when adversely affecting vegetation essential for maintaining wildlife habitat and unacceptable damage to resources would occur if no controls are applied.

Prescription 12

Goal Statement: Provide habitat to support a stable lynx population over the long term while accessing the area for the purpose of growing and producing merchantable wood fiber.
Description: This applies to Management Area 12
Desired Future Condition: Lodgepole pine stands have been identified as an important component of lynx habitat. Desired condition of this Management Area will provide 1) denning habitat (subalpine fir old growth, with a heavy down tree component)-10 percent of the area, 2) forage, hiding, thermal, and stalking cover-30 percent, 3) travel cover-30 percent, and 4) non-habitat (roads, natural openings, created openings)-30 percent.

Recreation Standards and Guidelines

MA12-8A The visual quality Objective is modification in sensitivity level I road and trail corridors and maximum modification in all other areas.
MA12-8B Roaded modified recreation opportunities should be provided.

Wildlife Standards and Guidelines

MA12-6A Manage to provide for cover amounts between 50 and 70 percent per 160 acres of the Lodgepole Pine Working Group. Cover amounts include denning (10 percent), travel (20-30 percent), and forage/hiding/thermal and stalking (20-30 percent) Opening width should be less than 600 feet to facilitate lynx movements.
MA12-6B Nonstructural improvements should be implemented when needed.
MA12-6C Improvements should be implemented and maintained where needed.

Timber Standards and Guidelines: Planning

MA12-20A Scheduled and non-scheduled timber harvest shall be designed to perpetuate lynx habitat and to address current habitat needs.
MA12-20B Firewood use of slash generated by logging and other silvicultural activities shall be provided on a limited basis. When practicable, encourage fire- wood use of non-merchantable live trees to accomplish silvicultural objectives.

Timber Standards and Guidelines: Harvest

MAl2-20C Even-aged management shall be practiced in the Moist Productive, Dry Productive and Lodgepole Pine Working Groups Even-aged or uneven-aged management may be practiced in the Low Productive Working Group.
MA12-20D A created opening for wildlife management purposes is an area where dominant confer regeneration is less than six feet tall following clearcutting, seed tree cutting, or overstory removal cutting.
MA12-20E Overstory removal of shelterwood and seed trees shall be scheduled to 1) prevent unacceptable damage to regeneration from logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.

Timber Standards and Guidelines: Reforestation

MA12-20F No type conversion from lodgepole pine to other species shall be open in the Lodgepole Pine Working Group.

Timber Standards and Guidelines: Sale Preparation

MA12-20G Operating season for logging and post sale operations shall be restricted when necessary to protect roads, soil, water and wildlife resources. To protect lynx reproductive sites, the operating season shall be decided on a case by case basis in denning areas.

Roads Standards and Guidelines

MA12-17A Roads shall be planned, constructed and managed to limit disturbance to lynx in coordination with the Washington State Department of Wildlife.
MA12-17B To limit wildlife disturbance, road density shall be limited to one mile of road open to motorized use per square mile of discreet individual Management Area
MAI2-17C On local roads, public access shall be discouraged or prohibited during periods of commercial hauling. High clearance vehicles should be accept- ed during post sale activities and all motorized traffic shall be discouraged or eliminated after post sale activities.
MA12-17D During winter months (December - March), all motorized vehicles, including snowmobiles, shall be restricted by regulation to areas and routes designated open.

Protection Standards and Guidelines: Fire and Fuels

MA12-19A The preferred suppression strategy is contain/control.

MA12-19B Limit acres burned by habitat damaging wildfires.
MAl2-19C Prescribed fire (planned and unplanned ignitions) may be used as a management tool to meet Management Area goals.
MA12-19D Fuels treatment, including the use of prescribed fire, shall provide, where practicable, for the retention of key wildlife habitat and shall be consistent with silvicultural objectives.

Protection Standards and Guidelines: Insects and Disease

MA12-19E When practicable, suppress insects and diseases adversely affecting vegetation essential for maintaining wildlife habitat and unacceptable damage to resources would occur f no controls are applied.

Prescription 14

Goal Statement: Provide a diversity of wildlife habitat, including deer winter range, while growing and producing merchantable wood fiber.
Description: This applies to Management Area 14.
Desired Future Condition: Deer winter ranges will provide habitat conditions including proper juxtaposition of forage and cover areas, to sustain desired deer population levels Dead tree habitat will be provided at a moderate level to support cavity dependent species. Even-age stands, and stands representing different age classes, species mix, and with variable structure will be found across the Forest.

Recreation

MA14-8A The visual quality objective is modification in all sensitivity level 1 road and trail corridors. and maximum modification in all other areas.
MA14-8B Roaded modified recreation opportunities should be provided.

Wildlife

MA14-6A Manage all identified deer winter range for the following well-distributed cover:

TABLE 4 -27 Characteristics of Deer Winter Range Cover by Area in Prescription 11

Winter Range Cover	East of the Okanogan River	Methow and Other
Snow intercept thermal	≥ 25%	≥ 15%
Winter thermal	≥ 5%	≥ 25%
Hiding	≥ 15%	≥ 0%
total	≥ 45%	≥ 40%

MA14-6B Where natural vegetation is not present to support optimal cover amounts, manage existing vegetation to approach cover objectives on a sustained basis. Where potential is not present as a result of previous management activities. manage to attain these percentages.

MAI4-6C Minimum cover amounts shall be 40 percent (20 percent hiding and 20 percent summer thermal cover) on the gross Management Area acreage and well distributed.
MA1 4-6D Non-structural improvements should be implemented as needed.
MA14-6E Structural improvements and maintenance should be implemented as needed.

Range

MA14-11A Eighty-five percent of the annual available browse shall be for wildlife and 15 percent for domestic livestock. (Refer to forage utilization standards in the FOREST PLAN, CHAPTER 4 - Forestwide Standards and Guidelines).
MA14-20A Scheduled and non-scheduled timber harvests shall be designed *to* perpetuate wildlife habitat and to address current habitat needs.
MA14-20B To the extent practicable, firewood use of slash generated by logging and other silvicultural activities shall be encouraged When practicable, encourage firewood use of non-merchantable live trees to accomplish silvicultural objectives.
MA14-20C Even-aged management shall be practiced in the Lodgepole Pine Working Group Even-aged or uneven-aged management may be practiced in the Moist Productive, Dry Productive, and Low Productive Working Groups.
MA1 4-20D A created opening for wildlife management purposes is an area where dominant conifer regeneration is less than six feet tall following clearcutting, seedtree cutting, or overstory removal cutting.
MA14-20E Overstory removal of shelterwood and seed trees shall be scheduled to 1) prevent unacceptable damage to regeneration from logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.
MA14-20F Western larch composition in stands to be managed for cover should not exceed 20 percent.
MA14-20G Operating season for logging and post sale operations shall be restricted where necessary to protect roads, soil, water, and wildlife resources. To protect fawning (June) and deer during winters (December through March), the operating season shall be decided on a case by case basis in fawning areas and deer winter range.

Roads Standards and Guidelines

MA14-17A To limit wildlife disturbance, road density shall be limited to two miles of road open to motorized use per square mile of discreet individual Management Area Exceptions to this road density may be permitted provided they meet the goals of the Management Area.

Protection Standards and Guidelines: Fire and Fuels

MA14-17B Access by motorized vehicles shall be prohibited on deer winter range, December through March, except for designated through routes. Winter haul may be permitted provided the goals of the Management Area are met.
MA14-17C East of the Okanogan River, winter logging and hauling should not be restricted but access by motorized vehicles not associated with logging/hauling and administrative use shall be prohibited December I to March 31 except on designated through routes.

MA14-17D On local roads, public access shall be discouraged or prohibited during commercial hauling. High clearance vehicles should be accepted during post sale activities.
MA14-19A The preferred suppression strategy IS contain/control.
MA14-19B Limit acres burned by habitat damaging wildfires.
MA14-19C Treat fuels to reduce the risk of wildfire to acceptable levels. Prescribe a level of fuel treatment to protect timber stands, wildlife values, and other re- sources from unacceptable losses caused by wildfire.
MA14-19D Place fire tolerant stands on a prescribed burning schedule where cost effective to meet management goals.

Insect and Disease

MAl4-19E Suppress insects and diseases when adversely affecting vegetation essential for maintaining wildlife habitat and/or unacceptable damage to resources would occur if no controls are applied.
MA14-19F Stands where uneven-aged management is applied shall be generally free of serious pathogens such as root rots and dwarf mistletoe.

Prescription 15A

Goal Statement: Maintain an extensive unmodified pristine environment within designated wilderness without system trails.
Description: This applies to Management Area 1.54.
Desired Future Condition: An area where natural processes and conditions will not be measurably affected by the actions of visitors. Area will be managed to be as free as possible from the influence of human activities. Area will provide the most outstanding opportunity for isolation and solitude, free from evidence of past visitor activities and with very infrequent encounters with other visitors. The visitor will have outstanding opportunities to travel cross-country utilizing a maximum degree of primitive skills, often in an environment that offers a high degree of challenge and risk.

Wilderness Standards and Guidelines: Planning

MA15A-21A The visual quality Objective is preservation.
MA15A-21B Primitive recreation opportunities shall be provided.
MA15A-21C All human activities shall follow a non-degradation policy.
MA15A-21DUse data gathering should emphasize voluntary registration system at trailheads or contacts at offices and trailheads rather than contacts within wilderness.
MA15A-21 E Except for emergency orders, Forest orders pertaining to wilderness regulation shall be discussed with concerned publics prior to adoption.

Wilderness Standards and Guidelines: Facilities

MA15A-21F Facilities for visitor use shall only be provided for protection of the wilderness resource and as a last resort, only after trying information and education, indirect management methods, or regulation of use.

Use Administration

MA15A-2lG Minimum impact techniques shall be used.
MA15A-21H The number and types of encounters between users should be controlled by limiting trailhead parking, maintaining or increasing the amount of difficult access, or by separating users.
MA15A-21I Campsites should be located within forested areas on litter where possible. Sites should be located to take advantage of topographic or vegetative screening.
MA15A-21 J Campsites should not be visible (within 500 feet) or audible from any other camp site.
MA15A-21K Campsites should be located at least 200 feet slope distance from meadows, lakes, streams, and key interest areas Camping may be restricted or prohibited in certain areas to protect wilderness values.
MA15A-21L Leaving or storing equipment, personal property, or supplies unattended for more than 48 hours shall be prohibited. Written exceptions may be granted by the District Ranger upon request.
MA15A-2lM Maximum party size shall be 12 people and 18 head of stock.
MA15A-21N There should be at least an 80 percent probability of not more than one encounter per day between groups during all use periods.
MA15A-21O Pets may be restricted for protection of wildlife or to decrease re- source impacts.
MAl5-21P Grazing, hitching, tethering, or hobbling recreation pack and saddle stock within 200 feet slope distance of the shoreline of any lake shall be prohibited.
MA15A-21Q Possessing or transporting unprocessed hay or grain livestock feed shall be prohibited. Written exceptions may be granted by the District Ranger upon request for State or Federally approved weed-free feed.
MA15A-21R Outfitter guide authorizations consistent with area direction may be issued.
MA15A-21S Reserved (base) camps shall not be allowed.
MA15A-21T Management control necessary to protect the ecological and social elements throughout the area may be evident outside wilderness, particularly at trailheads and boundary portals.
MA15A-12U Information service shall be designed to help meet management objectives rather than to promote use.
MA15A-21V Patrols and monitoring of conditions by Forest Service and other appropriate State and Federal agency personnel shall only be conducted as necessary to achieve management objectives.

Trails Standards and Guidelines

MA15A-21W System trails shall not be allowed. Existing system trails shall be allowed to brush in or shall be returned to as near a natural condition as possible.
MA1 5A-21X User created travel routes should not be readily apparent or should appear to be wildlife trails. There shall be no maintenance of user created travel routes.
MA15A-21Y Average user created travel route density shall be less than 0.4 miles per section.
MA1 5A-21Z User created travel routes shall not be shown on Forest Service maps or trail guides.

MA15A-21AA Bridges shall not be provided or replaced.
MA15A-21 BA Only signing necessary for wilderness resource protection shall be provided.

Fish and Wildlife Standards and Guidelines

MA15A-6A Fish and wildlife indigenous to the wilderness shall be maintained with emphasis on threatened and endangered species.
MA15A-3A Lakes approved for fish stocking shall not be aerially stocked.
MA15A-3B Cleaning of debris that impedes the migratory movements of fish on primary spawning streams may be permitted.
MA15A-6B Visitor use shall not decrease habitat effectiveness for any species by more than ten percent.
MA15A-3C Only those barren waters where scientific and research values will not be eliminated shall be considered for stocking.
MA15A-6C Exclosure structures shall not be allowed.
MA15A-6D Visitor use shall seldom and only temporarily displace wildlife populations.

Vegetation Standards and Guidelines

MA15A-22A There shall be no long-term modification of natural plant succession as a result of human activities. Acceptable modifications are those which can recover in one growing season.
MA15A-22B Vegetation loss should not exceed 225 square feet (0.5 percent of any acre) at any impacted site.
MA15A-22C There should be no loss of trees from recreation activities.
MA15A-22D There should be fewer than two trees with exposed roots per impact- ed sites.
MA15A-22E Standing snags should be left, except that removal of snags during fire suppression efforts shall be determined on a case by case basis.
MA15A-22F Firewood gathering may be permitted for use on site and shall be limited to dead and down material. Firewood gathering shall be restricted where necessary. Use of small fires and self contained stoves shall be encouraged.

Range Standards and Guidelines

MA15A-11A Domestic livestock grazing allotments shall not be authorized.

Noxious Weeds Standards and Guidelines

MA15A-12A Noxious weeds may be controlled when they threaten lands outside wilderness or when they are spreading within wilderness; provided control is possible without causing serious adverse impacts to wilderness values.

Soil and Water Standards and Guidelines

MA15A-13A Displacement and erosion of soil resulting from human activity shall be limited to a rate that closely approximates the natural process.

MA15A-13B Soil compaction from human activities should not prevent natural plant establishment and growth.
MA15A-13C There should be no measurable degradation of water quality as a result of human activities.

Minerals Standards and Guidelines

MA15A-15A Access to existing valid claims and/or leases shall be by methods which create the least lasting impact on the wilderness resource, while still meeting the needs of the claimant and staying within applicable laws and regulations.

Lands Standards and Guidelines

MA15A-16A The USDI, Geological Survey cabin near Freezeout Creek shall be renewed to determine the need for retaining.

Facilities Standards and Guidelines

MA15A-18A Permanent communication facilities shall not be installed.
MA15A-18B Existing inventoried helispots shall not be improved or maintained and shall be allowed to revegetate naturally.
MA15A-18C Remote automated weather stations shall not be installed.

Protection Standards and Guidelines: Fire and Fuels

MA15A-19A The preferred suppression strategy for lightning caused wildfires is confinement. The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy should be used d wildfires: 1) threaten significant cultural resources or capital investments, 2) have the potential to cross the U.S./Canadian border, 3) threaten Management Areas with more restrictive fire management direction. or 4) will result in unacceptable off site impacts.
MA15A-19B When containment or control action is the selected fire management strategy, wilderness suppression guidelines shall be applied.
MA15A-19C Planned ignition shall not be used to indicate prescribed fire in wilder- ness areas.
MA15A-19D Prescribed fire ignited by lightning may be used to meet wilderness fire management objectives of: 1) reducing the risks and consequences of wild- fire within the wilderness or escaping from the wilderness, and 2) permitting lightning caused fires to play, as nearly as possible, their natural ecological role within wilderness.
MA15A-19E A prescribed fire plan shall be approved prior to the use of prescribed fire in the wilderness.

Protection Standards and Guidelines: Insect and Disease

MA15A-19F Insect or disease outbreaks shall not be artificially controlled unless it IS necessary to prevent unacceptable resource damage to resources on adjacent lands or an unnatural loss to the wilderness resource. If control becomes necessary, it shall be carried out by measures that have the least adverse impact on the wilderness resource and are compatible with wilderness objectives.

Prescription 15B

Goal Statement: Maintain a predominately unmodified primitive environment within designated wilderness with a variety of trail opportunities.
Description: This applies to Management Area 15B.
Desired Future Condition: An area with a minimum of on site controls and restrictions, and where the presence of controls will be subtle. Facilities will only be provided for protection of wilderness resource values. Materials should be native where possible and in all cases will be natural appearing. Area will provide a high to moderate opportunity for exploring and experiencing isolation and solitude, independence, closeness to nature, tranquility, and self-reliance through the application of primitive skills in an environment that offers a high to moderate degree of challenge and risk.

Wilderness Standards and Guidelines: Planning

MA15B-21A The visual quality objective is preservation
MA15B-21B Primitive recreation opportunities shall be provided.
MA15B-21C Use of nature and natural materials for facilities shall dominate. Use of dimensional and non-nature material should remain subtle to the wilderness user.
MA15B-21D All human activities shall follow a non-degradation policy.
MA15B-21E Use data gathering should emphasize voluntary registration system at trailheads or contacts at offices and trailheads rather than contacts within wilderness.
MA15B-2F Except for emergency orders, Forest orders pertaining to wilderness regulation shall be discussed with concerned publics prior to adoption.

Wilderness Standards and Guidelines: Facilities

MA15B-21G Facilities for visitor use shall only be provided for protection of the wilderness resource and as a last resort, only after trying information and education, indirect management methods, or regulation use.

Wilderness Standards and Guidelines: Use Administration

MA15B-21H Minimum impact techniques shall be used.
MA15B-21I The number and types of encounters between users should be con- trolled by limiting trailhead parking, maintaining or increasing the amount of difficult access, or by separating uses.
MA15B-21J Campsites should be located within forested areas on litter, where possible Sites should be located to take advantage of topographic or vegetative screening.
MA15B-21K There should be an 80 percent probability of two or fewer campsites being visible or audible from any campsite.
MA15B-21L Campsites should be located at least 200 feet slope distance from meadows, lakes, streams, and key interest areas. Camping may be restricted or prohibited in certain areas to protect wilderness values.
MA15B-21M Leaving or storing equipment, personal property, or supplies unattended for more than 48 hours shall be prohibited. Written exceptions may be granted by the District Ranger upon request.

MA15B-21N Maximum party size shall be 12 people and 18 head of stock. Written exceptions may be granted when:

1) Application is made to the District Ranger,
2) Campsites and travel routes are capable of physically and socially absorbing such use.
3) Use will not occur during heavy use periods.
4) There will be no more than one oversized party at a time on a trail or popular use route or in a destination area.
5) The oversized group will not occupy most of a destination area.
6) Travel will be in groups not exceeding 12 people or 18 head of stock and separated in time on the same trail.
7) For commercial parties, all oversized groups shall be considered temporary use.

MA15B-21O There should be at least an 80 percent probability of not more than seven encounters per day between groups while traveling on trails during all use periods.
MA15B-21P Pets may be restricted for the protection of wildlife or to decrease resource impacts.
MA15B-21Q The current number and type of outfitter guide authorizations and the current amount of priority use allocated to outfitter guides shall be retained.
MA15B-21R Only those camp structures and facilities necessary for the outfitter guide to properly meet their public service in a manner compatible with the wilderness environment shall be authorized. For commercial parties, all oversized groups shall be considered temporary.
MA15B-21S Grazing, hitching, tethering, or hobbling recreation pack and saddle stock within 200 feet slope distance of the shoreline of any lake shall be prohibited.
MA15B-21T Possessing or transporting unprocessed hay or grain livestock feed shall be prohibited. Written exceptions may be granted by the District Ranger upon request for State or Federally approved weed-free feed.
MA15B-21U All camp structures and facilities shall be temporary in nature and shall be located away from main trails, streams, lakes, key interest features, and non-outfitted public use areas.
MA15B-21V The number and location of reserved (base) camps shall be specified in individual special use authorizations, based on the availability of good camp- sites, the needs of the outfitter guide, and the needs of the non-outfitted public. The special use authorization shall describe allowable structures and facilities, maintenance requirements, and use periods for each reserved camp.
MAl5B-21W All structures and facilities at outfitter camps shall be dismantled at the end of the annual use season Storage of dismantled structures and facilities may be allowed at locations specified in special use authorizations.
MA15B-21X Spike camps may be authorized under special use authorizations, but shall be unreserved.
MA15B-21Y Management control necessary to protect the ecological and social elements throughout the area may be evident outside wilderness, particularly at trailheads and boundary portals.
MA15B-21Z Information service shall be designed to help meet management objectives rather than to promote use.

MA15B-21AA Periodic to moderate presence of personnel engaged in monitoring or project work may be evident Project work should be scheduled during low use periods where practicable.

Wilderness Standards and Guidelines: Trails

MA15B-21BB Trails shall be constructed, reconstructed, and maintained to the difficulty level appropriate to the target user group. Trails should generally be more difficult to most difficult.
MA15B-21CC Trails or trail segments not necessary to meet area objectives shall be allowed to brush in or shall be returned to as near a natural condition as possible.
MA15B-21DD System trails shall not access all attraction features, such as lakes. When trail access is constructed to attraction features, only spur trails shall be constructed.
MA15B-21EE User created travel routes shall not be readily apparent or should appear to be wildlife trails. There shall be no maintenance of user created travel routes. Average user created travel route density shall be less than 0.8 miles per section.
MA15B-21FF User created travel routes shall not be shown on Forest Service maps or trail guides.
MA1 58-21GG Bridges shall only be provided or replaced when: I) no other route or crossing is reasonably available, 2) the crossing, during the primary season of public use, cannot be negotiated afoot safely, or cannot be forded by horses safely, 3) unacceptable bank damage will occur from visitors seeking a crossing, or 4) flood waters frequently destroy or damage less sturdy structures.
MAISB-21HH A maximum of two directional signs with a maximum of two route locations per sign may be placed at trail junctions. Distances shall not be provided, except that existing signs meeting this direction may remain until replacement is needed.

Fish and Wildlife Standards and Guidelines

MA15B-6A Fish and wildlife indigenous to the wilderness shall be maintained with emphasis on Threatened and Endangered Species.
MA15B-3A In the Pasayten Wilderness, only the following lakes shall be aerially stocked:

Airview	Eagle	Halfmoon	Ramon
Buckskin	Fawn	Heather	Remmel
Cathedral, Lower	Ferguson	Hidden	Remmel, N.
Cathedral, Upper	Four Point	Hopkin	Sheep
Covial	Fox	Lease	Smith
Cougar	Freds	Peep Sight	Tungsten
Crow	Frosty	Ptarmigan	
Dead	Glory	Quartz	

MA15B-3B Cleaning of debris that impedes the migratory movements of fish on primary spawning streams may be permitted.
MA15B-6B Visitor use shall not decrease habitat effectiveness for any species by more

than 20 percent.
MA15B-3C Only those barren waters where scientific and research values will not be eliminated shall be considered for stocking.
MA15B-6C Temporary exclosure structures may be used to determine the impact of wildlife on wilderness values.
MA15B-6D Visitor use shall not displace wildlife from critical areas during critical periods.

Vegetation Standards and Guidelines

MA15B-22A There should be no long-term modification of natural plant succession as a result of human activities on areas outside campsites, administrative sites, and designated tml tread. Acceptable modifications are those which can recover in one growing season.
MA15B-22B Vegetation loss should not exceed 400 square feet (one percent of any acre) at any impacted site.
MA15B-22C There should be no lass of trees from recreation activities.
MA1 58-22D There should be fewer than four trees with exposed roots per impacted sites.
MA15B-22E Standing snags should be left, except where removal is necessary to protect major bridges and administrative facilities. Removal of snags during fire suppression efforts shall be determined on a case by case basis.
MA15B-22F Vegetative impacts along trails shall be confined to the planned location and to meet individual trail objectives.
MA15B-22G Firewood gathering may be permitted for use on site and shall be limited to dead and down material. Firewood gathering shall be restricted where necessary. Use of small fires and self-contained stoves shall be encouraged.

Range Standards and Guidelines: Planning

MA15B-11A Domestic livestock grazing allotments shall be limited to those allotments under permit at the time of the establishment of the wilderness.
MA15B-11B The forage resource shall be utilized in conformance with all wilderness resource values.
MA15B-11C AMPs shall document the need for use of motorized vehicles, motorized equipment, or other forms of mechanical transport based on the rule of practical necessity and reasonableness.

Range Standards and Guidelines: Improvements

MA15B-11D New structural and non-structural improvements necessary to protect the range and/or wilderness resource, rather than to increase the number of livestock, may be constructed.
MA15B-11E New or existing improvements shall be of materials which harmonize with the wilderness character of the areas long as the use of such materials does not greatly increase costs to permitees.
MA15B-11F Existing, necessary range improvements may be maintained. Those determined unnecessary shall be phased out.

Noxious Weeds Standards and Guidelines

MA15B-12A Noxious weeds may be controlled when they threaten lands outside wilderness or when they are spreading within wilderness, provided control is possible without causing serious adverse impacts to wilderness values.

Soil and Water Standards and Guidelines

MA15B-13A Displacement and erosion of soil resulting from human activity shall be limited to a rate that closely approximates the natural process.
MA15B-13B Soil compaction from human activities should not prevent natural plant establishment and growth except at some campsites, administrative facilities, and in designated tread.
MA15B-13C Human activities should not degrade water quality except for temporary changes where water quality returns to its normal level when the activity ceases.
MA15B-13D The existing level of Big Hidden Lakes shall be retained by maintaining the upper diversion ditch and middle diversion dam, using primitive hand methods. No repairs shall be made on the lower dam.

Minerals Standards and Guidelines

MA15B-15A Access to existing valid claims and/or leases shall be by methods which create the least lasting impact on the wilderness resource, while still meeting the needs of the claimant and staying within applicable laws and regulations.

Lands Standards and Guidelines

MA15B-16A The USDI, Geological Survey stream gauging station at Andrews Creek shall be removed.

Facilities Standards and Guidelines

MA15B-18A The War Creek Administrative Site shall not be retained for administrative purposes. Management of the War Creek Site shall be determined following a cultural resource evaluation.
MA158-18B The Spanish Camp, Stub Creek, Big Home, and Pasayten Airport Administrative Sites shall be retained for administrative purposes. Site plans shall be developed and only necessary structures shall be retained.
MA15B-18C The Pasayten Airstrip shall remain closed to aircraft use The Federal Aviation Association shall be encouraged to remove the airstrip from aircraft charts. The airstrip shall be allowed to revegetate naturally.
MA15B-18D Monument 83 and Slate Peak Lookouts should be returned. Additional lookouts shall not be constructed.
MA15B-18E Permanent communication facilities should be retained at Monument 83 Additional permanent communication facilities shall not be installed.
MA15B-18F Existing inventoried helispots shall not be improved or maintained and shall be allowed to revegetate naturally.
MA15B-18G Remote automated weather stations shall not be installed.

Protection Standards and Guidelines: Fire and Fuels

MA15B-19A The preferred suppression strategy for lightning caused wildfires is confinement The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or control strategy should be used if wildfires: 1) threaten significant cultural resources or capital investments, 2) have the potential to cross the U S./Canadian border, 3) threaten Management Areas with more restrictive fire management direction, or4) will result in unacceptable off site impacts.
MA15B-19B When containment or control action is the selected fire management strategy, wilderness suppression guidelines shall be applied.
MA15B-19C Planned ignition shall not be used to initiate prescribed fire in wilder- ness areas.
MA15B-19D Prescribed fire ignited by lightning may be used to meet wilderness fire management objectives of: 1) reducing the risks and consequences of wild- fire within the wilderness or escaping from the wilderness, and 2) permitting lightning caused fires to play, as nearly as possible, their natural ecological role within wilderness.
MA15B-19E A prescribed fire plan shall be approved prior to the use of prescribed fire in the wilderness

Protection Standards and Guidelines: Insect and Disease

MA15B-19F Insect or disease outbreaks shall not be artificially controlled unless it is necessary to prevent unacceptable resource damage to resources on adjacent lands or an unnatural loss to the wilderness resource. If control becomes necessary, it shall be carried out by measures that have the least adverse impact on the wilderness resource and are compatible with wilderness Objectives.

Prescription 17

Goal Statement: Provide a variety of developed recreation opportunities in a roaded setting.
Description: This prescription applies to Management Area 17. The area allocated to this use includes only the specific site development.
Desired Future Condition: Facilities will be provided where opportunities for meaningful experiences are present and where the setting ranges from predominantly natural appearing to substantially urbanized. The probability of experiencing affiliation with other users will be prevalent as will be the convenience of facilities. the setting and opportunities for challenge and risk and the testing of outdoor skills is generally unimportant except for activities such as downhill skiing. Concentration of users ranges from low to high. Sites will be managed in such a way that controls and restrictions are obvious.

Recreation Standards and Guidelines: Planning

MA17-8A The visual quality objective ranges from retention to modification.
MA17-8B Roaded natural, roaded modified, rural, and urban recreation opportunities shall be provided based on the management emphasis of the surrounding area and the goals

and objectives of the individual site.
MA17-8C Sites may be at all development scales 1 to 5 based on individUa1 site goals and objectives.
MA17-8D Vegetative management plans shall be completed for all sites. Vegetative management includes tree removal, thinning, planting, and other cultural activities necessary to maintain or enhance the recreation resource, including snag management for interpretive purposes or wildlife habitat.

Recreation Standards and Guidelines: Facilities

MA17-8E All facilities at fee sites and trailheads leading to classified areas or recreation management emphasis areas shall be maintained to maintenance Class 1 standards.
MA17-8F Facilities at non-fee sites may be maintained to less than maintenance Class 1 standards.
MA17-8G Isolated, low use sites may be converted to dispersed use considering factors such as 1) excess capacity within the locale, 2) duplication of kinds of sites and recreation opportunities, 3) costs exceeding public benefits, or 4) facility conditions not warranting further expenditure or rehabilitation.
MA17-8H New site construction, existing site expansion, and major site upgrading shall be permitted to maintain or enhance recreation opportunities or when seasonal occupancy of existing sites exceeds 45 percent of theoretical capacity.

Recreation Standards and Guidelines: Use Administration

MA17-8I Existing recreation residence tracts shall be retained.
MA17-8J Systems at downhill ski areas shall be monitored for compliance with the area operation plan.
MA17-8K Development at the Early Winters Alpine Winter Sports Ste and Loup Loup Ski Area shall be authorized according to approved masters site development plans.
MA17-8L Existing organization sites shall be retained. Site plans shall be revised prior to installation of any facilities not included on the current site plan.
MA1 7-8M 'Future use determination' for all government-owned improvements under Granger-Thye permit shall be completed prior to authorizing a new use or transferring use. A five-year operation and maintenance plan shall be completed If the decision is to continue use of improvements.

Range Standards and Guidelines

MA17-11A Domestic livestock grazing should generally be excluded from developed recreation sites, but may be allowed where compatible with site objectives

Timber Standards and Guidelines

MA17-20A Scheduled timber harvest shall not be permitted.
MA17-20B Selective removal of individual or groups of trees shall be prescribed on a nonscheduled basis to enhance scenic or recreation opportunities or to accomplish vegetative management goals.

MA17-20C Prohibit firewood gathering for off site use.

Roads Standards and Guidelines

MA17-17A Roads within the developed site shall be reconstructed, constructed, and/or operated and maintained to encourage highway vehicles and to a level commensurate with the design level of the site.

Protection Standards and Guidelines: Fire and Fuels

MA17-19A The preferred suppression strategy is control.
MAl7-19B Minimum impact suppression techniques should be used to minimize site disturbance.
MA17-19C Fuels shall be treated to meet visual and recreation objectives and to eliminate, to the maximum extent possible, the probability of a wildfire that will damage the recreation resource.

Protection Standards and Guidelines: Insect and Disease

MA17-19D Control insect and disease infestations to provide a safe environment for recreation users, to protect facilities, and to prevent the spread of introduced pests to the surrounding Management Areas.

Prescription 18

Goal Statement: Maintain lands where unusual plant communities or associations occur to provide opportunities for botanical research and education.
Description: This applies to Management Area 18.
Desired Future Condition: Plant communities will be allowed to exist and develop to provide representative examples of unaltered communities. Animal populations native to the area will be allowed to exist. Maintain plant communities and values for which the area was established.

Recreation Standards and Guidelines

MA18-8A The visual quality objective is retention.
MA18-8B Semiprimltive non-motorized recreation opportunities shall be provided during the summer and fall seasons. Semiprimitive motorized recreation opportunities should be provided during the winter and spring seasons, but may be restricted to designated routes and areas.

Wildlife Standards and Guidelines

MA18-6A Animal populations which threaten the maintenance of the unusual plant communities or associations may be controlled.

Range Standards and Guidelines

MA18-11A Grazing of domestic livestock may be permitted where a level of casual or incidental use can be defined and is consistent with the goals of the Management Area.
MA18-11B Livestock grazing shall be allowed where it is necessary to perpetuate the plant community.

Timber Standards and Guidelines: Fire and Fuels

MA18-20A Scheduled and non-scheduled timber harvest shall be prohibited.

Facilities Standards and Guidelines

MA18-18A No new road construction should be allowed unless it is developed for preserving or enhancing the Management Area values.
MA18-18B Hazard tree falling is permitted along boundary trails or roads for safety. Felled trees shall remain in place, unless lying across a trail or road.

Protection Standards and Guidelines: Fire and Fuels

MA18-19A The preferred wildfire suppression strategy is contain/control.
MA18-19B Prescribed fire, using either planned or unplanned ignitions, may be used to maintain the ecosystems and unusual plant communities.

Protection Standards and Guidelines: Insect and Disease

MA18-19C No action should be taken against insects and diseases unless an outbreak threatens the plants being protected or is inconsistent with the management goals for the adjacent areas.

Prescription 24

Goal Statement: Provide minerals exploration and development opportunities while retaining, to the extent possible, existing natural conditions.
Description: This applies to Management Area 24.
Desired Future Condition: Minerals exploration and development opportunities will be provided in areas generally Characterized by a natural or naturally appearing environment. Recreation and wildlife opportunities consistent with the natural setting may be provided. Roads will not be constructed, except where reasonably necessary for mineral activities.

Recreation Standards and Guidelines

MA24-8A The visual quality objective is retention Exceptions are permitted for mineral exploration and development.
MA24-8B Semiprimtive non-motorized recreation opportunities should be provided in Pasayten Rim and semiprimtive motorized recreation opportunities in Bodie Mountain.

Range Standards and Guidelines

MA24-11A Manage commercial livestock to reduce conflicts with recreationists.

Timber Standards and Guidelines

MA24-20A Scheduled timber harvest shall not occur.
MA24-20B Sanitation and salvage harvest may occur based on the following criteria: 1) when necessary for mineral exploration or development, 2) when necessary to protect the recreation and scenic values in the area or in adjacent Management Areas, and 3) when necessary to prevent the spread of disease or insects to adjacent Management Areas where timber production is a primary emphasis and projected volume losses would be substantial.

Minerals Standards and Guidelines

MA24-15A Salable mineral disposal or use should be excluded except where necessary for locatable or leasable mineral exploration or development activities.

Wildlife Standards and Guidelines

MA24-6A Wildlife habitat maintenance and improvements shall be compatible with the goals of the Management Area.

Roads Standards and Guidelines

MA24-17A Roads shall not be constructed except where necessary to provide reasonable access for minerals exploration and development. Where practicable, roads will be limited to primitive traffic service level **D** roads. Non-minerals use of these roads may be restricted to protect other resource values.

Protection Standards and Guidelines

MA24-19A The preferred suppression strategy is confinement. The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy shall be used if wildfires threaten capital investments, Management Areas with more restrictive fire management direction, or if resource damage is likely to be unacceptable.
MA24-19B To the extent practicable: 1) use minimum impact suppression techniques; 2) use indirect attack techniques such as natural fuelbreaks, and changes in vegetative type and topography: and 3) minimize disturbances resulting from all phases and types of suppression.

Prescription 25

Goal Statement: Intensively manage the timber and range resources using both even-aged and uneven-aged Silvicultural practices. Manage to achieve a high present net value and a high level of timber and range outputs while protecting the basic productivity of the

land and providing for the production of wildlife, recreation opportunities, and other resources.
Description: This applies to all lands in Management Area 25.
Desired Future Condition: On suitable lands in the Moist Productive and Dry Productive Working Group that are capable of producing 20 cubic feet per acre CMAI, stands will be well stocked and thrifty. Even-aged stands, and stands representing different age classes, species mix, and with variable structure will be found across the Forest. On suitable lands in the Lodgepole Pine Working Group that are capable of producing at least 20 cubic feet per acre CMAI, stands will be well stocked and thrifty. Even-aged stands of different age classes will be found across the Forest. On lands that are in the Low Productive Working Group, or that are unsuitable for timber production, stands would be variable in structure. Even-aged stands would predominate in lodgepole pine dominated forest types. Both even and all aged stands would be found in the mixed conifer dominated types. Well developed access will permit intensive management of productive stands in all working groups. Suitable, non-transitory range will be in good condition. Transitory range will be managed in a manner compatible with silvicultural objectives.

Recreation Standards and Guidelines

MA25-8A The visual quality objective is modification in sensitivity level 1 road and trail corridors and maximum modification in other areas.
MA25-8B Roaded modified recreation opportunities should be provided.

Wildlife Standards and Guidelines

MA25-6A Minimum cover amounts shall be 30 percent (15 percent hiding and 15 percent summer thermal cover) of the gross Management Area acreage and well distributed.

Range Standards and Guidelines

MA25-11A Specific allotments, and portions of allotments that will be intensively managed for transitory range shall be identified according to the following criteria:

1) Intensive transitory range management practices and techniques shall be applied to blocks of at least 100 acres.
2) Specific areas where intensive transitory range management practices will be applied shall be determined following site specific, interdisciplinary analysis associated with the updating and revision of AMPs. Priority should be given to using intensive transitory range to reduce grazing impacts to resources such as riparian areas, recreation uses, or other portions of the range.
3) Up to five percent of suitable timber lands may be managed with intensive transitory range practices.

MA25-11B Bring fair and poor condition suitable non-transitory rangelands to good condition.
MA25-11C Maintain improvements on suitable rangelands.
MA25-11D With improvements, meet “2’ or ‘D‘ level management on suitable non-

transitory rangelands where economically desirable.
MA25-11E Transitory range structural and nonstructural improvements and grazing systems shall be designed subject to silvicultural, wildlife, and other resource objectives.

Timber Standards and Guidelines: Planning

MA25-20A To the extent practicable, firewood use of slash generated by logging and other silvicultural activities shall be encouraged. When practicable, encourage firewood use of non-merchantable live trees to accomplish silvicultural objectives.
MA25-20B Where intensive transitory range management is practiced, crown closure should be maintained at less than 50 percent for at least half of the rotation, and even-age, silviculture shall be applied.
MA25-20C Non-scheduled timber harvest on lands unsuited for timber production may be used to achieve range and other multiple use resource goals for this Management Area.

Timber Standards and Guidelines: Harvest

MA25-20D Rotation length in even-aged stands shall be based on maximizing present net value and achieving 95 percent CMAI.
MA25-20E Overstory removal of shelterwood and seed trees shall be scheduled to **1)** prevent unacceptable damage to regeneration f" logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.
MA25-20F Uneven-aged or even-aged management may be practiced in the Moist Productive, Dry Productive, and Low Productive Working Groups.
MA25-20G Even-aged management shall be applied in the Lodgepole Pine Working Group.
MA25-20H Stands should be harvested as early as possible following 95 percent CMAI, where transitory range values are to be maximized and when intensive range management is scheduled.

Timber Standards and Guidelines: Stand Improvement

MA25-20I On lands suitable for timber production and selected for transitory range management, crop tree stocking following precommercial thinning shall produce a high volume increment while maximizing the period that crown closure is less than f@ percent during the rotation. In even-aged stands where no commercial thins are planned, precommercial thinnings, where prescribed, shall be designed to attain maximum merchantable cubic foot volume at rotation.
MA25-20J Stocking control and other timber stand improvement treatments shall be applied in the Dry Productive, Moist Productive, and Lodgepole Pine Working Groups when necessary to meet resource goals of the Management Area.

Timber Standards and Guidelines: Sale Preparation

MA25-20K Operating season for logging and post sale operations shall be unrestricted except to protect roads, soil resources, and water resources. To protect fawning (June), the operating season may be restricted on a case by case basis in designated fawning

areas.

Roads Standards and Guidelines

MA25-17A The transportation system should be adequate for logging, post sale activities and protection, and coordinated with the needs of range and other resources.
MA25-17B Long-term local roads for timber access shall be planned, constructed, maintained, and operated to be economically efficient. During commercial hauling activities, public access shall be discouraged or prohibited. High clearance vehicles should be accepted during post sale activities.
MA25-17C To limit wildlife disturbance, road density shall be limited to three miles of road open to motorized use (not including snow machines) per square mile of discrete individual Management Area.

Protection Standards and Guidelines: Fire and Fuels

MA25-19A The preferred suppression strategy is contain/control.
MA25-19B Limn destructive burned acreage.
MA25-19C Treat fuels to reduce risk of wildfire to acceptable levels while maintaining long-term site productivity.
MA25-19D Prescribe a level of treatment for natural and active created fuels to protect timber stands and other resources from unacceptable losses caused by wildfire.
MA25-19E Place fire tolerant stands on a prescribed burning schedule where cost effective to meet management and objectives.

Protection Standards and Guidelines: Insect and Disease

MA25-19F Stands with a high level of dwarf mistletoe or root rot shall receive the highest priority for silvicultural treatment.
MA25-19G Stands where uneven-aged management is applied shall be generally free of serious pathogens such as root rots and dwarf mistletoes.
MA2519H Aggressively suppress insects and diseases when outbreaks significantly threaten resource management. Use principles of integrated pest management to select suppression strategies.
MA25-19I High intensity prevention with sound principles of integrated pest man-agreement shall be used. Monitor populations of major pests to be forewarned of outbreak situations.

Prescription 26

Goal Description: Manage deer winter range and fawning habitats to provide conditions which can sustain optimal numbers of deer indefinitely, without degrading habitat characteristics such as forage, cover, and soil.
Description: This applies to Management Area 26.
Desired Future Condition: Deer winter ranges will be managed to provide optimum habitat conditions for deer by maintaining well distributed winter thermal and snow/intercept thermal cover and foraging areas. Wood product outputs will be provided

at a reduced level. Winter recreation activities will be encouraged outside of deer winter range. Access to these areas will be provided on designated through routes to reduce disturbance to wintering deer. Motorized access will be restricted to maintain wildlife habitat effectiveness at higher levels. Even-aged stands, and stands representing different age classes, species mix, and with variable structure will be found across the Forest. Deer winter ranges are an essential part of deer habitat since animals concentrate on these areas from well dispersed summer ranges. In the Methow Valley winter ranges are generally found below 5000 feet elevation, but east of the Okanogan River on the 'North-hap, deer winter range is found where coniferous timber stands provide the necessary thermal cover. The spatial distribution of cover and forage areas on the winter ranges is v q important to reduce the distances deer are required to move between the habitat components.

Recreation Standards and Guidelines

MA26-8A The visual quality objective is modification in sensitivity level 1 road and trail corridors and maximum modification in all other areas.
MA26-8B Roaded modified recreation opportunities should be provided.

Wildlife Standards and Guidelines

MA26-6A Manage all identified deer winter range for the following well distributed cover:

TABLE 4-28 Percent of Deer Winter Range Cover by Area in Prescription 26

Winter Range Cover	East of the Okanogan River	Methow and Other
Snow intercept thermal	≥ 30%	≥ 15%
Winter thermal	≥ 10%	≥ 25%
Hiding	≥ 20%	≥ 0%
Total	≥ 60%	≥ 40%

MA26-6B Where natural vegetation Is not present to support optimal cover amounts, manage existing vegetation to approach cover objectives on a sustained basis. Where potential is not present as a result of previous management activities, manage to attain these percentages.
MA26-6C Cavity nester habitat shall be managed to provide at least 80 percent of potential woodpecker population size.
MA26-6D Non-structural improvements should be implemented where needed.
MA26-6E Structural improvements and maintenance should be implemented where needed.

Range Standards and Guidelines

MA26-11A livestock grazing shall be allowed as long as wildlife habitat values are maintained or are increased.
MA26-11B Eighty-five percent of the annual available browse shall be for wildlife and

15 percent for domestic livestock. (Refer to forage utilization standards in the FOREST PIAN, CHAPTER 4 - Forestwide Standards and Guidelines.)

Timber Standards and Guidelines: Planning

MA26-20A Scheduled and non-scheduled timber harvests shall be designed to perpetuate deer habitat and to address current habitat needs.
MA26-20B Encourage use of slash generated by logging and other silvicultural activities for firewood to the extent practical, and eliminate or prohibit such use where necessary to meet the goals of this Management Area.

Timber Standards and Guidelines: Harvest

MA26-20C Uneven-aged or even-aged management may be practiced in the moist productive, dry productive, and low productive working groups.
MA2620D Even-aged management shall be applied in the lodgepole pine working group.
MA26-20E A created opening for wildlife management purposes is an area where dominant conifer regeneration is less than **SIX** feet tall following clearcutting, seed tree cutting, or overstory removal cutting.
MA26-20F Rotation length shall be based on meeting structural needs of deer cover.
MA26-20G Overstory removal of shelterwood and seed trees shall be scheduled to **1)** prevent unacceptable damage to regeneration from logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.

Timber Standards and Guidelines: Reforestation

MA26-20H Western larch composition in stands to be managed for cover should not exceed 20 percent.
Timber Standards and Guidelines: Sale Preparation
MA26-20I Operating season for logging and post sale operations shall be restrict- ed when necessary to protect roads, soil, water, deer winter range, and fawning areas.
MA26-20J To protect deer during winter, operations shall be prohibited December through March except east of the Okanogan River. Logging and past sale operations shall be limited to protect fawning during June.

Roads Standards and Guidelines

MA26-17A On local roads, public access shall be discouraged or prohibited during periods of commercial hauling. High clearance vehicles should be accept- ed during post sale activities.
MA26-17B To limit wildlife disturbance. road density shall be limited to one mile of road open to motorized use per square mile of discrete individual Management Area Exceptions to this road density may be permitted provided they meet the goals of the management area.
MA26-17C Access by motorized vehicles shall be prohibited December through March, except for designated through routes Winter haul may be permitted pro- vided the goals of the management area are met. East of the Okanogan River, winter logging and hauling

should not be restricted but access by motorized vehicles not associated with logging/hauling and administrative use shall be prohibited December 1 to March 31 except on designated through routes Access through fawning area by motorized vehicles shall be prohibited in June, except where designated open.

Protection Standards and Guidelines: Fire and Fuels

MA26-19A The preferred suppression strategy is contain/control.
MA2619B Limit acres burned by habitat-damaging wildfires.
MA26-19C Fuels treatment, including the use of prescribed fire, shall provide, where practicable, for the retention and/or enhancement of key wildlife habitat.

Protection Standards and Guidelines: Insect and Disease

MA26-19D Suppress insects and diseases when adversely affecting vegetation essential for maintaining wildlife habitat and unacceptable damage to resources would occur If no controls are applied.
MA26-19E Stands where uneven-aged management is applied shall be generally free of serious pathogens such as root rots and dwarf mistletoes.

End of MA Prescriptions.

Planning

8-1 Recreation and trail opportunities for a variety of recreation activities, including winter recreation activities, shall be provided consistent with the goals and recreation opportunity setting for the Management Area.
8-2 Recreation services partnerships to provide recreation facilities and Services shall be used where feasible.
8-3 Visitor information, education, and interpretive opportunities shall be provided consistent with the recreation opportunity setting for the area.
8-4 Potential conflicts between recreation users shall be considered in project planning. Users should be involved in creating the solutions.
8-5 Approved design criteria and site plans shall be required for all new site construction, existing site expansion, and major site upgrading.
8-6 Planning for recreation site and facility construction and reconstruction shall assess the needs for barrier free facilities and provide as appropriate.
8-7 Off road vehicle opportunities shall be provided consistent with the goals of the Management Area
8-8 Off road vehicle opportunities shall be designed to minimize damage to soil, water, vegetation, and other resources, to minimize disturbance of wildlife or significant disruption of wildlife habitat, and to minimize conflict with other recreation uses.
8-9 Dual snowmobile/wheeled vehicle traffic may be authorized on a case by case basis provided: 1) log haul is not occurring, and 2) speed limit and signs warning of dual traffic are posted at both ends of the dual route and where other snowmobile routes or roads

enter dual traffic routes.

Special Uses

8-10 Annual reviews of recreation special use authorizations shall emphasize health, safely, and resource protection.
8-11 Recreation special use authorizations shall conform with the goals of the Management Area.
8-12 Give priority to authorizations needed to provide public service.
8-13 Grant new special use authorizations only when: 1) use is compatible with planning direction for National Forest land, 2) use will not cause major damage or impairment to National Forest resources and programs, and 3) National Forest land is the most logical place for the use.

Trails

8-14 Importance of existing system trails shall be considered in project planning If a decision IS made to segment or shorten a trail, then similar opportunities shall be created.
8-15 Seasonal trail closures may be used for safety, resource protection, and to meet Management Area goals.
8-16 Written authorizations (e.g., contracts, permits, agreements, and letters) shall contain stipulations for protecting and/or relocating system trails consistent with the goals and recreation opportunity setting for the Management Area.
8-17 The Pacific Crest National Scenic Trail shall be closed to motorized and to mechanical forms of transportation.

Wild and Scenic Rivers Standards and Guidelines

Wild

9-1 The potential wild classification attributes within a one-fourth mile wide corridor on each side of the following eligible river segments shall be protected pending Congressional action on river designation:

TABLE 4-16 Eligible River Segments for Potential Wild Classification

River	Segment Description
Methow	Brush Creek to rattlesnake Creek
Chewuch	Tungsten Creek to Thirtymile Campground
Twisp	Confluence of North and South Forks to wilderness boundary
Lost	Rampart Creek to point just north of Lost River bridge in SE ¼ of Section 32, T37N, R19E
Pasayten	Holman Creek on West Fork and Fred's Lake tributary on Middle Fork to US-Canadian Border
Wolf	South Fork to wilderness boundary
Canyon	Wilderness boundary to point on range line between Section 12, R14E and Section 17, R16E, T37N

9-2 This includes:
Outside wilderness, recreation facilities shall be limited to simple comfort and convenience facilities. Within wilderness, recreation facilities shall be for resource protection only. In all cases, facilities shall be located away from the shoreline.

Motorized recreation vehicle use shall not be permitted, except that recreation vehicles designed for over snow use may be permitted in corridors outside wilderness.

Common variety mineral material sources shall not be developed.

Utility corridors shall not be permitted.

New impoundments and water diversions shall not be authorized.

Scenic

9-3 The potential scenic classification attributes within a one-fourth mile wide corridor on each side of the following eligible river segments shall be protected pending Congressional action on river designation:

TABLE 4-17 Eligible River Segments for Potential Scenic Classification

River	Segment Description
Methow	Rattlesnake Creek to private land boundary near Lost River
Chewuch	Thirtymile Campground to Forest Boundary
Twisp	Wilderness boundary to private land boundary near Lime Creek
Lost	Point just north of Lost River bridge in SE ¼ of Section 32, T37N, R19E to Methow River
Canyon	Point on range line between Section 12, R14E and Section 17, R16E, T37N to Ruby Creek
Ruby	Confluence with Canyon and Ruby Creeks to Forest Boundary
Granite	Swamp Creek to Ruby Creek

9-4 This includes:

New recreation sites and facilities shall be widely spaced and screened from the river

Motorized recreation vehicle use off roads should be restricted to designated routes and areas.

Common variety mineral material sources should not be developed.

New above ground utility lines should not be permitted.

New impoundments and diversions should not be authorized.

Recreation

9-5 The potential recreation classification attributes within a one-fourth mile wide corridor on each side of the following eligible river segments shall be protected pending Congressional action on river designation:

TABLE 4-18 Eligible River Segments for Potential Recreation Classification

River	Segment Description
Methow	Private boundary near Lost River to Forest Boundary
Twisp	Private land boundary near Lime Creek to Forest Boundary
Wolf	Wilderness boundary to Forest Boundary

9-6 This includes:

Recreation sites and facilities may be within view of the river.
Motorized recreation vehicle use off roads may be restricted to designated routes and areas.
Common variety mineral material sources may be permitted.
New, above ground utility lines should be discouraged.
New impoundments and diversions which do not impact the free flowing nature of the river may be authorized.

Visual Resource Standards and Guidelines

10-1 Management activities shall be designed to blend, to the extent practicable, with the natural terrain to achieve aesthetics or other resource objectives consistent with the visual quality objectives for the Management Area.
10-2 Scenic byway designations may be recommended consistent with goals of the Management Area.
10-3 Exceptions to Management Area visual quality objectives shall be limited to the immediate surroundings of the stand, recreation attraction. or feature of concern and result in a small number of acres.

Range Standards and Guidelines

Planning

11 -1 Update range AMPs. Identify lands in unsatisfactory condition. Develop AMPs with specific Objectives for these lands on a priority basis under a schedule established by the Forest Supervisor. These objectives shall meet a desired future condition based on existing and potential values for all resources. The AMP shall include:

1. a time schedule for improvement;
2. activities needed to meet forage objectives; and
3. an economic efficiency analysis.

11-2 AMPs shall include a strategy for managing riparian areas for a mix of resource uses. A measurable desired future riparian condition should be satisfactory or greater. Range condition within riparian ecosystems should be in good or better condition class with a stable or upward trend. In condition classes fair or less, management shall be designed to attain an upward trend. When the current riparian condition is less than satisfactory, objectives shall include a schedule for improvement. The AMPs shall identify management actions needed to meet riparian objectives within the specified time frame. Measurable objectives shall be set for key parameters.
11-3 When riparian resource damage is occurring, determination of the cause of the

resource damage shall be made prior to taking action through the allotment management plan. Alleviate damage caused by grazing through proven means. Fencing may be used when other management approaches have not given satisfactory results in the same or similar resource conditions.

11-4 Forage utilization standards for suitable rangelands, outside of riparian areas, follows:

TABLE 4-19 Allowable Use of Available Forage Outside Riparian Areas1 (maximum annual utilization percentage)[2]

	Forest		Grassland		Shrubland	
Ranger Resource Management Level	**Sat. Cond[3].**	**Unsat. Cond[4].**	**Sat. Cond.**	**Unsat. Cond.**	**Sat. Cond.**	**Unsat. Cond.**
B-Livestock use managed within current grazing capacity by riding, herding, and salting. Cost effective improvements used only to maintain stewardship of range.	40	0-30	50	0-30	40	0-25
C-Livestock managed to achieve full utilization of allocated forage. Management systems designed to obtain distribution and maintain plant vigor include fencing and water development.	45	0-35	55	0-35	45	0-30
D-Livestock managed to optimize forage production and utilization. Cost effective cultural practices improving forage supply, forage use, and livestock distribution may be combined with fencing and water development to implement complex grazing systems.	50	0-40	60	0-40	50	0-35

11 -5 Forage utilization standards for riparian areas follow:

TABLE 4-20 Allowable Use of Available Forage in Riparian Areas[5] (maximum annual

[1] This will be incorporated in annual operating plans and AMPs. AMPs may include utilization standards which are either lower or rarely higher when associated with intensive grazing systems and specific vegetation management objectives which will meet resource objectives. Includes cumulative annual use by big game and livestock. Satisfactory and unsatisfactory conditions are defined in the glossary.

[2] Utilization based on percent removed by weight for grass, grasslike, and forbs.

[3] Satisfactory Condition.

[4] Unsatisfactory Condition.

[5] This will be incorporated in AMPs. AMPs may include utilization standards which are either lower or

utilization percentage)[1]

	Grassland		Shrubland	
Ranger Resource Management Level	**Sat. Cond.**	**Unsat. Cond.**	**Sat. Cond.**	**Unsat. Cond.**
B-Livestock use managed within current grazing capacity by riding, herding, and salting. Cost effective improvements used only to maintain stewardship of range.	40	0-30	30	0-25
C-Livestock managed to achieve full utilization of allocated forage. Management systems designed to obtain distribution and maintain plan vigor include fencing and water development.	45	0-35	40	0-30
D-Livestock managed to optimize forage production and utilization Cost effective cultural practices improving forage supply, forage use, and livestock distribution may be combined with fencing and water development to implement complex grazing systems	50	0-40	50	0-35

Improvements

11-6 Range structural and non-structural improvements and maintenance shall conform with the resource emphasis of the Management Area and shall be specified in the AMP.
11-7 Range improvements and practices shall not be designed to increase livestock use in riparian ecosystems but should enhance riparian ecosystems.

Noxious Weeds Standards and Guidelines

12-1 Control noxious weeds to the extent practical.
12-2 New infestations of noxious weeds should be the first priority for eradication.
12-3 Emphasis on noxious weed control shall be on the prevention of infestations, especially into unroaded areas and wilderness

Soil and Water Standards and Guidelines

Inventory

13-1 Inventory potential soil and water rehabilitation sites identified during project

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rarely higher when associated with intensive grazing systems and specific vegetation management objectives for the riparian dependent resources. Includes cumulative annual use by big game and livestock. Satisfactory and unsatisfactory conditions are defined in the glossary.
[1] Utilization based on percent removed by weight for grass, grasslike, and forbs.

scoping.
13-2 All activities shall comply with State requirements for protection of waters in the State of Washington (Washington Administrative Code, Chapters 173-201 and 202) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with the Clean Water Act, regulations, and Federal guidance issued.
13-3 In cooperation with Washington State, the Forest shall use the following process:

1. Select and design BMPs based on site-specific conditions, technical, economic, and institutional feasibility, and the water quality standards for those waters potentially impacted.
2. Implement and enforce BMPs.
3. Monitor to ensure that practices are correctly applied as designed.
4. Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards.
5. Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected.
6. Adjust BMP design standards and application when It is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.

13-4 Use the existing, mutuality developed process to implement the State Water Quality Management Plan on lands administered by the Forest Service as described in Memorandum of Undemanding (MOU) between the Washington State Department of Ecology and USDA, Forest Service (7/79). And 'Attachment A' referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest System Lands in the Pacific Northwest 12/78).
13-5 All activities shall meet the Pacific Northwest Region Streamside Management Unit policy goals.

Improvements

13-6 Improvements of the water resource should conform with the resource goals of the Management Area
13-7 Rehabilitate soil productivity. water quality and land following any management activities that result in long-term site degradation to meet the goals of the Management Area.
13-8 Maintenance of watershed improvements should conform with the resource goals of the Management Area.

Management

13-9 To reduce soil displacement, ground yarding systems should not be used on sustained slopes in excess of 35 percent.
13-10 Ground yarding systems shall be restricted to meet Regional guidelines for soil compaction, displacement, and puddling. No more than 15 percent of an area shall be in a puddled, displaced, or compacted condition following completion of management

activities.

Water Use

13-1 1 Water use rights should be obtained from the Washington State Department of Ecology when water is needed for uses not defined in the i897 Organic Act or other legislation defining reserved rights.

Air Quality Standards and Guidelines

14-1 Management activities within the Forest shall be planned to maintain air quality at a level adequate for the protection and use of the National Forest resources, and which also meet or exceed the applicable Federal and State standards.
14-2 The Forest shall demonstrate reasonable progress in reducing total suspended particulate (TSP) emissions from prescribed burning.
14-3 The Forest air resource shall be protected against pollution sources from outside Forest Boundaries through application of the Prevention of Significant Deteriorations Regulations contained in the Clean Air Act, PL 88 206.

Minerals Standards and Guidelines

15-1 Claimants are entitled to access their mining claims. Access for exploration and development of locatable mineral resources shall be analyzed in response to a proposed operating plan. A decision on approval of reasonable access shall be made as a result of appropriate environmental analysis.
15-2 During development d operating plans, or plan modifications, reasonable alternative mitigation "sur85 and/or operating requirements shall be developed to define the minimum stipulations needed to best protect other resources while still meeting the needs of mineral development. The test for operating plan requirements is 'reasonableness.'
15-3 All Forest Service projects shall include reasonable measures to protect valid existing rights and improvements of mineral claimants, leasees, and permittees
15-4 Mineral resource impacts shall be considered during project planning where surface uses may result in a recommendation for mineral withdrawal.
15-5 Mineral lease proposals shall be reviewed in a timely fashion. Decisions or recommendations to lease or to include special lease stipulations shall be accomplished through appropriate NEPA analysis. Special lease stipulations shall be required, where necessary, to protect surface resources and/or sustain the Management Area direction.
15-6 Provide salable minerals If consistent with the goals of the Management Area Authorize salable mineral exploration and removal under terms and conditions to prevent, minimize, or mitigate adverse impacts on other resources and uses.

Lands Standards and Guidelines

Special Uses

16-1 Special use authorizations shall conform with the emphasis of the Management Area.

16-2 Give priority to authorizations needed to protect public health and safety, provide public service, or provide access to private lands.
16-3 Grant new authorizations only where: 1) use is compatible with planning direction for National Forest land, 2) National Forest resources and programs shall not be damaged or be impaired, 3) private land is not available to accommodate the use, 4) National Forest System land is the most logical place for the use, and 5) private land rights would be significantly infringed upon without an authorization, such as when pinnate land use is contingent upon the authorization
16-4 Electronic uses shall be restricted to designated sites and shall have approved site plans.
16-5 Special use authorizations and Section 4E requirements provided to Federal Energy Regulatory Commission for inclusion in their licenses and permits shall conform with the emphasis of the Management Area.

Withdrawals

16-6 Minimize National Forest acreage withdrawn from mineral entry.

Landline Rights-of-way

16-7 All existing mineral withdrawal shall be reviewed as to current need by 1991 as noted in Section 204 (1) Federal Land Policy Management Act (FLPMA 90 Stat. 2754).
16-8 Sites containing significant Forest Service capital investments or unusually sensitive areas such as developed recreation sites, Research Natural Areas, or administrative sites shall be reviewed and evaluated for withdrawal need. If appropriate, the sites shall be recommended for withdrawal from mineral entry.

Landline

16-9 Establish the Forest boundary. Also, establish Congressionally designated boundaries where needed for management activities. First priority shall be where adjacent uses are potentially incompatible with the Management Area resource emphasis.
16-10 Protect all survey monuments and markers.

Rights-of-Way

16-11 Obtain rights-of-way to provide access to National Forest System land where needed.
16-1 2 Work toward acquiring rights-of-way and sharing in the construction cost of roads and trails that serve National Forest, landowner, and other user needs.
16-13 Continue working with Okanogan County to transfer roads with substantial local use to county jurisdiction
16-14 Existing utility corridors shall be maintained. When applications for rights-of-ways for utilities are received, first priority is to utilize residual capacity in existing corridors.
16-15 Designation of any additional corridors shall be through an interagency environmental analysis.

Lands Adjustment

16-16 Adjust landownership by changing ownership through 1) purchases, 2) exchanges, 3) donations with private landowners, State, and local government agencies, and 4) transfer with other Federal agencies.
16-17 Lands in and around the Okanogan National Forest shall be classified to encourage the best land pattern the Forest can seek. All lands shall be placed in one of the following groups:
Group I. These are lands where Congress has either directly or indirectly instructed the Forest Service to retain ownership and acquire non-federal lands for a designated purpose (includes wilderness and special areas). In most situations the objective is to retain existing ownership and acquire remaining land. Acquisition of less than fee title shall be considered d land management objectives can be met in that way.
Group II. These are lands needed for a special type of management and allocated for that purpose. In most situations the objective is to retain National Forest ownership and acquire private land. Acquisition of less than fee title shall be considered If land management objectives can be met in this way.
Group III. These are general National Forest System land and are divided into four subgroups:
III-A - Consolidated areas of National Forest System land that are generally solid blocks. The contiguous blocks shall not normally be breached (creating a gap destroys the consolidated character) for land adjustment unless the area designated is a retraction area
III-B -This includes land identified as being deer winter range or migration routes. The integrity of these lands shall be maintained through ownership by public agencies or, in the Methow Review District, protection through county zoning regulations. National Forest lands may be retained or exchanged to other entities that would provide for continuation of those migration routes and winter ranges.
III-C -This includes areas of muted private and Federal ownership. The objective is to rearrange ownership patterns to benefit commodity production goals for public and private lands and to utilize National Forest System land to acquire high
priority lands for National Forest use.
III-D -These are isolated parcels that can best be managed by the Forest Service or some other public agency. A parcel may be transferred or exchanged to another public agency.
Group IV. These lands include small isolated tracts of National Forest System land situated away from contiguous blocks of National Forest System land and private lands that are managed for intensive uses such as agriculture, residential subdivision, industrial development, ditch lines, State and County highways, etc. Federal lands in this group should normally be made available for disposal in land exchanges to acquire land in Groups I, II, or 111. Private lands in this group are generally not available and should normally not be acquired by the Forest Service
Group V. These are lands which need more intensive study and planning before landownership decisions can be made. Land acquisition and disposal decisions shall be deferred until the needed studies have been completed.
Group VI. These are lands that may qualify for disposal under the Small Tracts Act of 1983. They include three categories of lands:

7. Encroachments, lands of less than 10 acres on which adjoining landowners, in good faith, relied on an erroneous survey, title search, or other land description, and built

improvements on National Forest System land.

8. Road rights-of-way, reserved, or acquired in fee road rights-of-way substantially surrounded by non-National Forest System land and not needed for forest or public road system.
9. Mineral survey fractions, lands of less than 40 acres substantially surrounded by patented mining claims which cannot be efficiently administered by the Forest Service because of me, shape, or location and which could be used by the adjoining land owners.

16-18 Qualifying lands in all categories found in the public interest to do so, may, upon application, bearing of reasonable costs and paying of the appraised value of land, be quitclaimed to the applicant.
16-17 Road rights-of-way and mineral survey fractions that cannot be efficiently managed as National Forest System land may be offered at public sale in absence of application.

Access Standards and Guidelines

17-1 Road standards should be consistent with the goals and activities of the Management Areas or the collective requirements of the Management Areas
17-2 Operations on forest roads shall be prohibited, eliminated, or restricted when necessary to protect the transportation facility or soil, water, or other resources.
17-3 Areas, roads, and trails shall be designated open, closed, or restricted to motorized use to conform with management goals. These designations shall be displayed in the Forest Travel Plan.
17-4 Motorized wheeled vehicle and snowmobile traffic shall be eliminated or prohibited within one quarter mile of goat Management Areas, except where roads and trails are designated open. Where practicable. no new roads should be constructed within one quarter mile of goat Management Areas.
17-5 Motorized vehicles greater than 1000 pounds gross vehicle weight shall be eliminated or prohibited within one quarter mile of identified old growth stands, except where roads and trails are designated open. New roads may be constructed in old growth stands only when they provide the only practicable route possible to access harvestable timber stands beyond the old growth stand.
17-6 Winter logging operations shall be coordinated with winter sports activities. The following roads shall not be snowplowed and shall be closed to motorized wheeled traffic from December 1 to April 1:

- --Road 3200050 from the junction with Road 32 to the junction with Road 33
- --Road 37 from junction with County Road 9137 to the junction with Road 39
- --Road 39 from the junction with Road 37 to the]unction with Road 3820
- --Road 5400
- --Road 43 from the junction with Road 4300300 to the junction with Road 4340
- --Road 8020 from the junction with Road 4330 to the junction with Road 4010
- --Road 41 from South Summit Sno-park to the junction with Road 4100450
- --Road 42 from the sno-park in Section 23, T35N, R24E to the junction with

Road 4235
- --Road 52
- --Road 5225
- --Road 5220

17-7 The following roads shall not be snowplowed and shall be closed to motorized traffic from November 15 to April 1
- --Road 4410 from the junction with Road 4410575 to the junction with Road 4410200
- --Roads 441 0500,520,522,525,530,535.575,580,400,320,450,455,460,300, 200

17-8 The following roads shall not be snowplowed or open to motorized wheeled traffic from December 1 to April 1 in the same year (if one is open or plowed, then the other will not be).
- --Road 37 from the junction with Road 3700400 to the junction with Road 39 or Road 38 from Kerr Camp to the junction with Road 3820 plus Road 3820 to the junction with Road 39
- --Road 4300300 or Road 43 from the junction with Road 4300800 to the junction with Road 4300300
- --Road 44 plus Road 4440 from War Creek to Roads End or Road 4435 plus Road
- 4430 plus Road 4420 thru Section 18. T33N, R20E
- --Road 43 from private land in Section 23, T32N, R21 E. to the junction with Road 4340 or Road 4340 from the private land in Section 11, T31 N, R21 E, to the junction with Road 43
- --Road 51 from the junction with Road 5130 to Camp Four or Road 5010 from the junction with Road 37 to the junction with Road 51 near Camp Four
- --Road 4330 from the sno-park in Section 25, T31 N, R21 E to the junction with Road 8020 or Road 4010 from the sno-park in Section 25, T30N, R22E to the junction with Road 8020 This restriction applies from the implementation of this decision until January 1, 1991, during which time both roads may be plowed and open to motorized wheel traffic Okanogan National Forest Amendment 3 -- December 14, 1990

17-9 The Rendezvous special use area for cross-country skiing shall be closed to all motorized wheeled traffic and snowmobiles from November 15 to April 1.
17-10 Of the following roads, one of three will remain unplowed and will be closed to motorized wheeled traffic from December 1 to April 1:
- -Road 3300100
- -Road 3240
- -Road 33 from the junction with Road 3200050 to the Forest Boundary on the north section line of Section 3, T38N, R29E

Facilities Standards and Guidelines

18-1 Buildings, utility systems, and related facilities should be planned, developed, maintained, and operated for safe use, support of the Forest resource programs, and cost effectiveness. The construction of new buildings or additions to existing buildings and

utility systems shall comply with the approved site development plan.

Protection Standards and Guidelines

Fire and Fuels

19-1 The suppression of wildfires shall meet Management Area goals and fire management direction in a cost effective manner
19-2 In riparian areas and old growth stands, the preferred suppression strategy is control. In fire tolerant stands containment strategy may be used where riparian and old growth characteristics are not adversely affected.
19-3 Wildfires shall not be used to accomplish land and resource management objectives.
19-4 Prescribed fire (planned and unplanned ignitions) may be used as a management tool to meet Management Area goals.
19-5 Fire prevention and detection activities shall be conducted in a cost effective manner.
19-6 Cost effective fuel treatment methods shall be used to achieve management goals. The desired fuel profile and fuel treatments necessary to achieve that profile shall be determined. Treatment methods shall be selected based upon appropriate analysis, which includes long-term site productivity considerations. for all management activities or where natural fuel accumulations create a fuel profile that poses an unacceptable impediment to current or future protection and management.
19-7 Woody debris shall be left on the forest floor for wildlife habitat, long-term site productivity, soil fertility, and, where necessary, for microsite protection and seed. A sufficient amount of this debris shall be uncharred to provide for terrestrial wildlife, long-term soil productivity, and other purposes.
19-8 Treatment of natural fuels shall be prohibited in identified old growth stands.
19-9 In stands managed as future old growth, fuels treatment including prescribed fire shall provide for the retention of all key components of old growth.

Insect and Disease

19-10 Integrated Pest Management (IPM) strategies shall be used to manage pests in conformance with the resource goals of the Management Areas.

Range Standards and Guidelines

20-30 Range management practices should promote rapid reforestation of harvested areas.
20-31 Grass, forb, and shrub seeding should comply with the resource goals of the Management Areas.

Timber Standards and Guidelines

Planning

20-1 District Rangers shall recommend changes in suitable land classification (plus or

minus) to the Forest Supervisor based upon project level data and analysis Recommended changes shall be reported annually. District Rangers shall maintain detailed records of recommended changes.
20-2 Scheduled timber harvest shall only occur on suitable lands. Non-scheduled harvests may occur on unsuitable lands where necessary to meet other resource management goals or where necessary to protect timber resources on adjacent suitable lands from the spread of insects or disease.
20-3 Scheduled and non-scheduled timber harvest in riparian areas shall be designed to improve or maintain riparian values.
20-4 The size, shape, and layout of harvest units and timber stand improvement projects shall be designed subject to the resource emphasis of the Management Area.
20-5 The Mixed Confer Working Group is formed from the Wet Productive and Dry Productive Working Groups. The Wet Productive Working Group and the Dry Productive Working Group are fully interchangeable.
20-6 The Low Productive Working Group is established as a separate suitability component.
20-7 The Mixed Confer, Low Productive, and Lodgepole Pine Working Groups are separate and non-interchangeable.

Utilization

20-8 Utilization Standards for chargeable sawtimber shall be in accordance with Standard and Guideline 4-2, Regional Guide of the Pacific Northwest Region, and its approved amendments or revisions.

Harvest

20-9 Damage to residual trees during logging, fuels treatments, and related activities shall not reduce stocking levels below acceptable minimums as defined in the silvicultural prescription.
20-10 Clearcutting shall be prescribed only where it IS determined to be the optimum method of regeneration to meet multiple use objectives. To be determined as the optimum method, the silvics of managed conifer species and microenvironments created by clearcutting must be biologically compatible and there must be reasonable assurance that reforestation may be accomplished within prescribed time frames In addition, there must be no overriding factors that would preclude selection of clearcutting as the preferred harvest method, and one or more of the following criteria must be met:

10. Multiple-use considerations such as visual or recreation management, wildlife management, watershed management, or range management indicate that substantial benefits may be obtained by clearcutting as opposed to harvest by other methods.
11. Existing fuel loading or fuel loading created by harvesting and subsequent cultural activities is sufficient that it is not economically or operationally feasible to protect residual trees, or to avoid unacceptable soil or watershed damage during treatment of activity fuels.
12. Root rots or dwarf mistletoes are present in the stand and are sufficiently serious that significant mortality and volume losses are likely to occur if susceptible species are perpetuated in the regenerated stand.

13. Topographic location, soil depth, species composition, or other factors indicate that significant windthrow is likely to occur in residual trees following harvesting by other methods
14. Economic and operational considerations such as logging or species valuation indicate insufficient volume or value will be present in the residual stand to permit silviculturally necessary subsequent treatments to occur.
15. Where because of the effects of insects, disease, or generally poor physiological condition (vigor) R is unlikely that residual trees following shelterwood cutting, seed tree cutting, or selection cutting would produce adequate amounts of seed to reforest the stand, and multiple-use resource considerations do not preclude selection of clearcutting as the harvest method.
16. Following a natural catastrophic event such as fire, insect attack, or windthrow. In riparian areas, uneven age management may be applied in specific stands where it best meets management direction. Group Selection is the only uneven-aged method that may be applied in the lodgepole pine working group in riparian areas.

20-11 Stands selected for treatment shall generally have the highest silvicultural priority, subject to the Management Area goals. Diseased stands and stands subject to imminent insect attack shall be treated before other stands.
20-12 Rotation length shall meet or exceed 95 percent of the culmination of mean annual increment (CMAI).
20-13 When a diseased overstory is present following a shelterwood or seed tree cut, final removal should be scheduled to occur within ten years following the seed Cut.
20-14 Commercial thinnings shall be from below.
20-15 Intermediate harvests should not intensify existing insect or disease problems, and should reduce the impact of damaging agents on the future stand.
20-16 Commercial thinning should not occur in stands in the Low Productive Working Group.

Prescriptions

20-17 Prescriptions shall be approved by a certified silviculturist prior to each activity.
20-18 A silvicultural prescription shall be prepared for all harvest activities.
20-19 Data collected shall be in accordance with Regional guidelines, and shall be of sufficient quality to certify reforestation and timber stand improvement (TSl), and for upward reporting.

Reforestation

20-20 Natural regeneration shall be the preferred reforestation method in the Lodgepole Pine and Low Productive Working Groups. Where practicable, natural regeneration shall be used in the Mixed Conifer Working Group.
20-21 When practicable, accomplish site preparation objectives concurrently with fuels management objectives.
20-22 Interplanting should not occur unless necessary to meet other resource objectives. When contiguous portions of stands over two acres in size fall below minimum stocking, site preparation and replanting should be prescribed.

20-23 Favorable microsite conditions shall be created to promote establishment of planted or natural seedlings.
20-24 Where cost effective, animal damage control measures should be applied to reforestation areas where necessary to protect investments.
20-25 Where adequate natural regeneration has not occurred by the fifth year stocking survey, stands in mixed conifer and lodgepole pine working groups should be prepared and planted.
20-26 Where planting is prescribed, site preparation should be completed within two years following harvest. Firewood availability shall be considered in site preparation planning.
20-27 Prescribed planting or direct seeding should occur as soon as possible, but not later than one year after site preparation.
20-28 To the extent practicable, management should foster stands with mixed species composition.
20-29 Until stands are certified as established, reforestation following regeneration cutting shall receive priority in all Management Areas where timber management is practiced.
[There is no 20-30, 20-31 in the paper copy]

Stand Improvement

20-32 Where precommercial thinning is prescribed, it should produce the desired stand condition at the next commercial entry.
20-33 When precommercial thinning is prescribed, wildlife habitat cover needs shall be considered.
20-34 Precommercial thinning from below shall be the preferred method of stocking control. Prescribed fire may be used where it is the most cost effective method for achieving the growth and resource goals of the Management Area.
20-35 All precommercial thinning and timber stand improvement activities should be designed to minimize the spread of disease, or the creation of conditions favorable to injurious forest insects.
20-36 Precommercial thinning opportunities shall be ranked by present net value (PNV). Stands with higher PNV shall receive priority for treatment, subject to the resource goals of the Management Area
20-37 Where precommercial thinning is prescribed in managed stands, average crop tree height should be between SIX and twelve feet unless otherwise necessary to meet the resource goals of the Management Area. To the extent practicable, precommercial thinning should occur early enough to avoid the loss of live crowns or the need for slash treatment.
20-38 Animal damage control measures should be applied to seedling/sapling/pole stands where necessary and cast effective to protect investments.

Sale Preparation

20-39 Harvest plans shall be designed to provide for subsequent entries in adjacent stands.
20-40 When practicable, sufficient volume should be retained in shelterwood seed cut

entries to provide for economical entry at overstory removal.
20-41 Forest openings created by the application of even-aged harvest cutting methods shall be limned to a maximum size of 40 acres. Exceptions are permitted for natural catastrophic events or on an individual basis after a 60 day public notice period and review by the Regional Forester. In addition, the limits may be exceeded by as much as 50 percent without necessitating review by the Regional Forester or 60 days public notice when exceeding the limit will produce a more desirable combination of net public benefits and when any one of the following four criteria is met (final EIS Regional Guide, page 3-7):

17. When a larger created opening will enable the use of an economically feasible logging system that will lessen the disturbance to soil, water, fish, riparian resources, or residual vegetation. Such lessening is to be achieved by reducing landing or road construction, by enabling such construction away from unstable soil, or by reducing soil and vegetation disturbance caused by dragging logs.
18. When created openings cannot be centered around groups of trees infected with dwarf mistletoe or root rot and therefore need to be expanded to include these trees in order to avoid infection of susceptible adjacent conifers.
19. When visual quality objectives require openings to be shaped and blended tofu t the landform.
20. When larger openings are needed to achieve regeneration objectives in harvest areas being cut by the shelterwood method and where destruction of the newly created stand would occur as a result of delayed removal of shelter trees. This exception applies only to existing shelterwood units and to shelterwood units under contract prior to approval of the Forest Plan.

20-42 Created openings should be separated by blocks of land that generally are not classed as created openings and that contain one or more logical harvest units. Contiguous harvest units (cornering or otherwise touching) are not precluded, but must be considered as a single opening which must be created within requirements for size, exception procedures, and justification (final EIS Regional Guide, page 3-8).
20-43 The total area of created openings contiguous to 30 acre or larger natural openings should normally not exceed one-third of the natural opening perimeter. Openings should not be created adjacent to any natural openings (regardless of size) unless adequate vegetation along the edge can be developed or retained in sufficient density to protect wildlife and visual management Objectives. The determination of adequate vegetation will be made by an appropriate interdisciplinary team. (final EIS Regional Guide, page 3-8). No more than 25 percent of the perimeter of natural openings five acres and larger in size should be in created openings.
20-44 A harvested area d commercial forest land shall no longer be considered a created opening for silvicultural purposes when stocking surveys, carried out in accordance with Regional instructions, indicate prescribed tree stocking that is at least 4 1/2 feet high, or as otherwise determined by goals of Management Areas, and free to grow (final EIS Regional Guide, page 3-8).

Tree Improvement

20-45 Seed used for reforestation shall be source identified area (SIA) seed or better.

Genetically improved seed (SB) from the tree improvement program shall be used for reforestation as it becomes available.
20-46 Establish all seed orchards by the end of the planning period.
2047 Protect Select Trees from damage during management activities. Provide breeding partners for Select Trees. Groves of sexually mature trees, one acre or greater in size, with desirable characteristics shall be maintained around each Select Tree.

Protection Standards and Guidelines

20-48 Following the seed cut of shelterwood and seed tree harvests, fuels should be treated to eliminate the need for treatment of activity fuels following overstory removal.
20-49 To the extent practicable, fuel treatments following precommercial thinning and commercial thinning should minimize damage to residual stems Crop tree stocking shall not be reduced below prescribed minimum levels by fuel treatments.

Management Prescriptions

The National Forest System land within the Okanogan National Forest has been divided into 16 Management Areas, each with different management goals, resource potential, and limitations. The Management Areas are shown on the accompanying map, which can be used for reference. The Management Area maps of record will consist of a set of larger scale (7.5 minute quad) maps on file in the Forest supervisor's Office. These maps will be constructed upon selection of a final Forest Plan.

Except for Congressionally established boundaries and Research Natural Areas, the Management Areas boundaries are not firm lines and do not always follow easily found topographic features, such as major ridges. The boundaries represent a transition from one set of opportunities and constraints to another with management direction established for each.

This selection describes the prescriptions for each management Area. The prescriptions consist of a goal statement, description, desired future condition, activities and Standards and Guidelines. These Standards and Guidelines are numbered for reference purposes. The numbers are arranged such that they reflect: 1)the management area to which they pertain; 2) the resource area (as assigned in Forestwide Standard and Guidelines); and 3) Standard and Guideline identifier.

[Diagram goes here]

Prescription 4

Goal Statement: Provide semiprimitive nonmotorized recreation opportunities during summer and fall seasons. Semiprimitive motorized recreation opportunities may be provided during the winter and spring seasons.
Description: This applies to Management Area 4.
Desired Future Condition: Recreation opportunities will be provided in areas characterized by a predominately natural or naturally appearing environment. Users will have a high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of outdoors skills in an environment that offers challenges and risk. Interaction between users will generally b e low. Areas will be managed with subtle on-site controls and restrictions.

Recreation Standards and Guidelines: Planning

MA4-8A The visual quality objective is retention. Exceptions are permitted for treatment of insects and disease as allowed under this strategy.
MA4-8B Semiprimitive nonmotorized recreation opportunities shall be provided during summer and fall seasons. Semiprimitive motorized recreation opportunities should be provided during winter and spring seasons, but may be restricted to designated routes or areas.

Recreation Standards and Guidelines: Facilities

MA4-8C Facilities shall be maintained to standard.
MA4-8D Development scale 1 and 2 facilities needed for resource protection or to maintain or enhance recreation opportunities shall be reconstructed and constructed.

Recreation Standards and Guidelines: Use Administration

MA4-8E The numbers and types of encounters between users should be controlled.

Recreation Standards and Guidelines: Trails

MA4-8F Trails shall be operated and maintained to the difficulty level appropriate to the target nonmotorized user group.
MA4-8G Trails or trail segments not needed to meet management Area goals should be allowed to brush in or be returned to as near a natural condition as possible.
MA4-8H Mechanized equipment may be used for trail maintenance.
MA4-8I Trails should be reconstructed for resource protection, public safety, or to maintain or enhance recreation opportunities. New trails may be constructed for resource protection, maintenance, or enhancement of recreation opportunities.

Range Standards and Guidelines

MA4-11A Manage commercial livestock to reduce conflicts with recreationists.

Timber Standards and Guidelines

MA4-20A Scheduled timber harvest shall not occur.
MA4-20B Sanitation and salvage harvest may occur based on the following criteria: 1) when necessary to protect or enhance the recreation and scenic values in the area or in adjacent Management Areas, and 2) when necessary to prevent the spread of disease or insects to adjacent Management Areas where timber production is a primary emphasis and when protected volume losses would be substantial.

Roads Standards and Guidelines

MA4-17A Roads shall not be constructed except where necessary to provide reasonable minerals access. Existing roads shall be inactivated.

Protection Standards and Guidelines: Fire and Fuels

MA4-19A The preferred suppression strategy is confinement. The Appropriate Suppression response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy shall be used if wildfires threaten capital investments, Managements Areas with more restrictive fire management direction, or if resource damage is likely to be unacceptable.
MA4-19B To the extent practicable: 10 use minimum impact suppression techniques, 2) use indirect attack techniques such as natural fuelbreaks, and changes in vegetative type

and topography, and 3) minimize disturbances resulting from all phases and types of suppression.
MA4-19C Prescribed fire may be used to improve wildlife habitat conditions or reduce wildfire hazards.
MA4-19D Activity created slash should be treated to reduce risk to investments and the public.

Protection Standards and Guidelines: Insects and Disease

MA4-19E Insects and diseases may be suppressed when necessary to protect the recreation and the scenic values in the area or in adjacent Management Areas, when necessary to prevent the spread of insects and disease to adjacent management areas where timber production is a primary emphasis ad when projected volume losses would be substantial.
MA4-19F Past populations shall be monitored to assure that there is not an insect buildup that could spread to adjacent Management Areas.

Prescription 4M

Goal Statement: Provide year-round semiprimitive motorized recreational opportunities.
Description: This applies to Management Area 4M.
Desired Future Condition: Recreation opportunities will be provided in areas characterized by a predominately natural or naturally appearing environment. Users will have a moderate probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of outdoor skills in an environment that offers challenge and risk. Opportunities to have a high degree of interaction with the natural environment exist. Concentrations of users will generally be low. Areas will be managed with subtle on site controls and restrictions Motorized use will be allowed year round on designated trails, roads, or areas. New roads will not be constructed except to provide reasonable mineral access Designated existing roads will be maintained at a standard to encourage high clearance vehicles, ORVs, or ATVs. Designated trails will be maintained to a level that encourages motorized trail vehicles.

Recreation Standards and Guidelines: Planning

MA4M-8A The visual quality objective is retention. Exceptions are permitted for treatment of insects or disease as allowed under this strategy.
MA4M-8B Semiprimitive motorized recreation opportunities shall be provided year round on designated trails, existing roads, and areas. Semiprimitive nonmotorized recreation opportunities should be provided on a case by case basis.

Recreation Standards and Guidelines: Facilities

MA4M-8C Facilities shall be maintained to standard.
MA4M-8D Development scale 1 and 2 facilities needed for resource protection or to maintain or enhance recreation opportunities shall be reconstructed and constructed.

Recreation Standards and Guidelines: Use Administration

MA4M-8E The numbers and types of encounters between users should be controlled.

Recreation Standards and Guidelines: Trails

MA4M-8F Designated trails shall be maintained to a level that encourages motorized trail vehicles. Remaining system trails shall be operated and maintained to the difficulty level appropriate to the target nonmotorized user group.
MA4M-8G Trails or trail segments not needed to meet Management Area goals should be allowed to brush in or be returned to as near a natural condition as possible.
MA4M-8H Trails should be reconstructed for resource protection, public safety, or to maintain or enhance recreation opportunities. New trails may be constructed for resource protection, maintenance, or enhancement of recreation opportunities.

Range Standards and Guidelines

MA4M-11A Manage commercial livestock to reduce conflicts with recreationists.

Timber Standards and Guidelines

MA4M-20A Scheduled timber harvest shall not occur.
MA4M-208 Sanitation and salvage harvests may occur based on the following criteria: 1) when necessary to protect or enhance the recreation and scenic values in the area or in adjacent Management Areas, and 2) when necessary to prevent the spread of insects or disease to adjacent Management Areas where timber production is a primary emphasis and when projected volume losses would be substantial.

Roads Standards and Guidelines

MA4M-17A Roads shall not be constructed. except where necessary to provide reasonable minerals access Existing roads shall be maintained to encourage ORVs, ATVs, or high clearance vehicles.

Protection Standards and Guidelines: Fire and Fuels

MA4M-19A The preferred suppression strategy is confinement. The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy shall be used if wildfires threaten capital investments, Management Areas with more restrictive fire management direction, or if resource damage is likely to be unacceptable.
MA4M-19B To the extent practicable: 1) use minimum impact suppression techniques, 2) use indirect attack techniques such as natural fuelbreaks, changes in vegetative type and topography, and 3) minimize disturbances resulting from all phases and types of suppression.
MA4M-19C Prescribed fire may be used to improve wildlife habitat conditions or reduce wildfire hazards.
MA4M-19D Activity created slash should be treated to reduce risk to investments and the

public.

Protection Standards and Guidelines: Insect and Disease

MA4M-19E Insects and diseases may be suppressed when necessary to protect the recreation and the scenic values in the area or in adjacent Management Areas, or when necessary to prevent the spread of insects and disease to adjacent Management Areas where timber production is a primary emphasis and when projected volume losses would be substantial.
MA4M-19F Pest populations shall be monitored to assure that there is not an insect buildup that could spread to adjacent Management Areas.

Prescription 5

Goal Statement: Provide opportunities for recreation and viewing scenery in a roaded natural setting with a visual quality objective of retention or partial retention.
Description: This applies to Management Area 5. The visual quality objective will be based on variety class, distance zone, and sensitivity level.
Desired Future Condition: Recreation opportunities will be maintained and enhanced within this roaded recreation area by maintaining a predominately natural appearing landscape. Even-aged stands, and stands representing different age classes, species mix, and with variable structure. will be found across the Forest. Users will have a moderate to low probability of experiencing isolation from the sights and sounds of humans and a moderate to high probability of experiencing affiliation with other groups. Interaction between users ranges from low to high, but evidence of other users is prevalent.

Recreation Standards and Guidelines: Planning

MA5-8A The visual quality objective is retention where the following characteristics occur:

Table 4-21: Retention Visual Quality Objective in Prescription 5

Variety Class	Sensitivity Level	Distance Zone
A	1	All
B	1	Foreground

An exception is along the Middle Salmon Boulder Creek Road where the visual quality objective is partial retention.

MA5-8B The visual quality objective is partial retention where the following characteristics occur:

TABLE 4-22: Partial Retention Visual Quality Objective in Prescription 5

Variety Class	Sensitivity Level	Distance Zone
A	2 & 3	All
B	1	Middle ground & background
C	2	Foreground

C	1	Foreground & middle ground

MA5-8C Roaded natural recreation opportunities shall be provided.
MA5-8D Integrated viewshed and corridor schedules for vegetation management shall be completed.

Recreation Standards and Guidelines: Facilities

MA5-8E Facilities shall be maintained to standard.
MA5-8F Development scale I and 2 facilities needed for resource protection or to maintain or enhance recreation opportunities shall be reconstructed and constructed.

Recreation Standards and Guidelines: Trails

MA5-8G Trails should be reconstructed for resource protection or public safety purposes, or to enhance recreation opportunities.
MA5-8H New trails may be constructed as access to special features, to classified areas, to recreation management emphasis areas, or to enhance recreation opportunities.
MA5-8I Existing trails necessary as access to special features, to classified areas, to recreation management emphasis areas, or to enhance recreation opportunities shall be operated and be maintained to the difficulty level appropriate to the target user groups.
MA5-8J Trails or trail segments not needed to meet Management Area goals shall be allowed to brush in or be returned to as near a natural condition as possible.

Wildlife Standards and Guidelines

MA5-6A All identified deer winter range should be managed for the following well-distributed cover:

Table 4-23. Percent of Deer Winter Range Cover by Area in Prescription 5

Winter Range Cover	East of the Okanogan River	Methow and Other
Snow intercept thermal	≥ 30%	≥ 15%
Winter thermal	≥ 10%	≥ 25%
Hiding	≥ 20%	≥ 0%
Total	≥ 60%	≥ 40%

MA5-6B Where natural forest vegetation is not present to support optimal cover amounts, manage existing vegetation to approach cover objectives on a sustained basis.
MA5-6C Where potential is not present as a result of previous management activities, manage to attain these percentages.
MA5-6D Minimum cover amounts shall be 30 percent (15 percent hiding and 15 percent summer thermal cover) of the gross Management Area acreage and well distributed.

Range Standards and Guidelines

MA5-11A Manage commercial livestock to reduce conflicts with recreationists.
MA5-11B Eighty-five percent of the annual available browse on winter range shall be for wildlife and 15 percent for domestic livestock. (Refer to forage utilization standards in Forest Plan, Chapter 4: Forestwide Standards and Guide.

Timber Standards and Guidelines: Planning

MA590A Timber activities shall be designed to maintain or enhance roaded natural recreation opportunities and to provide a vegetative condition that meets the visual quality objective in perpetuity.
MA5-206 In retention areas, a) provide 15 percent of the stands or 15 percent of the foreground area in trees that exceed 24' DBH in mixed confer stands and 10' DBH in managed lodgepole pine stands, and b) provide 10 percent of the stands or 10 percent of the middle ground area in trees that equal or exceed 18' DBH in mixed conifer stands and 7' DBH in managed lodgepole pine stands.
MA5-20C In partial retention areas timber activities shall be designed to provide at least 30 percent of the stands in foreground with trees equaling or exceeding 16' DBH in mixed conifer stands and 7' DBH in managed lodgepole pine stands.
MA5-20D Firewood gathering should be consistent with the goals of this Management Area.

Timber Standards and Guidelines: Harvest

MA5-20EEven-aged methods shall be applied in the Lodgepole Pine Working Group. Even-aged methods should generally be applied in the Moist and Dry Productive Working Groups, except that uneven-aged methods may be applied where sire specific analysis determines they will best meet management direction.
MA5-20F In even-aged silvicultural systems where seed tree and shelterwood cutting is practiced, consistent with insect and disease conditions, overwood should not be removed until dominant trees reach 20 feet in height.
MA520G Rotation lengths are based on meeting the target tree sizes.
MA5-20H A created opening for visual resource management purposes is defined as an area where dominant trees are less than 20 feet tall; this includes clearcuts and seed tree harvests.
MAS-201 Sanitation and salvage harvests shall be allowed on a case by case basis to protect the stand.

Timber Standards and Guidelines: Stand Improvement

MA5-20J Precommercial thinning may be prescribed to meet the goals of the Management Area.

Timber Standards and Guidelines: Sale Preparation

MA5-20K Operating season for logging and post sale operations shall be restricted to protect the road, soils, water, and recreation resources To protect deer in winter

(December through March) and to protect fawning (June), the operating season may be restricted on a case by case basis in deer winter range and fawning areas.

Timber Standards and Guidelines: Tree Improvement

MA5-20L Select Trees shall be identified to the extent necessary to ensure they can be relocated. Excess marking shall be avoided.

Roads Standards and Guidelines

MA5-17A Arterial and collector roads should be reconstructed and/or operated, and maintained to encourage use by recreationists in highway vehicles. Concurrent use by recreationists and commercial hauling shall be accepted
MA5-17B Generally, local roads should be reconstructed, operated, and maintained to: 1) encourage highway vehicle access to developed recreation sites (e.g., campgrounds and trailheads); 2) encourage high clearance vehicle and discourage passenger cars on other roads. During commercial hauling activities, public access should be discouraged. Low standard local roads may be designated open to ATV and O W use and highway vehicles shall be eliminated on these routes.

Protection Standards and Guidelines: Fire and Fuels

MA5-17C To limit wildlife disturbance, local road dens9 shall be limited to three miles of road open to motorized use (not including snow machines) per square mile of discrete indvidual Management Area.
MA5-17D Local roads may be constructed to meet Management Area goals for additional public recreation needs or to satisfy other multiple use needs. Transportation plans shall consider future entries.
MA517E On deer winter range, access for motorized vehicles shall be prohibited December 1 through March 31 except for designated through routes. Winter haul may be permitted provided the goals of the Management Area are met. East of the Okanogan River, winter logging and hauling should not be restricted but access by motorized vehicles not associated with logging/hauling and administrative use shall be prohibited December 1 through March 31 except on designated through routes.
MA5-19A The preferred suppression strategy is control.
MA5-19B Limit the number of acres burned by wildfire and minimize evidence of suppression action along major transportation routes and key recreation areas.
MA5-19C Use of prescribed fire should meet the visual quality objective within three years of application.
MA5-19D Recreation, visual, and wildlife values shall be key considerations in determining overall fuel treatment level and methods.

Protection Standards and Guidelines: Insects and Disease

MA519E Insects and diseases shall be suppressed when outbreaks threaten managed resources and/or users. Suppression methods that minimize site disturbance should be used.

MA5-19F Stands shall be managed to control insect and disease problems and to control outbreaks, to the extent practicable.
MA5-176 Stands where uneven-aged management IS applied shall be generally free of serious pathogens such as root rots and dwarf mistletoes.

Prescription 7

Goal Statement: Preserve the high quality scenic setting within the North Cascades Scenic Highway, while providing recreational opportunities.
Description: This applies to Management Area 7.
Desired Future Condition: The existing scenic values of the area will be preserved while allowing for moderate expansion of recreation facilities with an emphasis on day use and short duration stay opportunities.

Recreation Standards and Guidelines: Planning

MA7-8A The visual quality objective is retention. Exceptions are permitted for treatment of insects and/or disease as allowed under this strategy.
MA7-8B Roaded natural and semiprimitive non-motorized recreation opportunities shall be provided: except that semiprimitive motorized recreation opportunities shall be provided on designated routes and areas when the area is snow covered.
MA7-8C Vegetative management plans shall be completed for all developed sites. Vegetative management may include tree removal, thinning, planting, and other cultural activities necessary to enhance or maintain the recreation resource.

Recreation Standards and Guidelines: Facilities

MA7-8D All facilities shall be maintained to standard. Developed sites should be at development scale 3 to 5.
MA7-8E Reconstruction or expansion of existing sites and facilities outside developed sites and construction of new sites and facilities outside developed sites shall only be accomplished to maintain or to enhance recreation opportunities or when occupancy of existing sites exceeds 40 percent of theoretical capacity.

Recreation Standards and Guidelines: Trails

MA7-8F Easy Pass, Rainy Lake, Lake Ann, Blue Lake, and Washington Pass Trails shall be closed to horse use.
MA7-8G Trails necessary as access to special features, to classified areas, to recreation management emphasis areas, or to enhance recreation opportunities shall be operated and be maintained to the difficulty level appropriate to the target user group.
MA7-8H Trails or trail segments not needed to meet Management Area goals should be allowed to brush in or be returned to as near a natural condition as possible.
MA7-8I New trails may be constructed to access special features, to classified areas, to recreation management emphasis areas, or to enhance recreation opportunities.

Wildlife Standards and Guidelines

MA7-6A Wildlife habitat improvements consistent with visual objectives shall be allowed.

Range Standards and Guidelines

MA7-11A Domestic livestock grazing shall not be permitted. Recreation livestock grazing shall be permitted except for the meadows at Rainy Lake turnoff and Whistler Basin. Users should be encouraged to use weed-free feed.

Timber Standards and Guidelines

MA7-20A Scheduled timber harvest shall not be permitted. Selective removal of individual or groups of trees shall be prescribed on a non-scheduled basis to enhance scenic or recreation opportunities or to accomplish vegetative management objectives at developed sites.
MA7-208 Firewood gathering shall be permitted for on site recreational activities and shall be limited to dead and down material.

Lands Standards and Guidelines

MA7-16A Utility structures shall not be permitted unless a Federal Energy Regulatory Commission permit is granted Utility structures shall be consistent with the visual or recreation objective.
MA7-16B Signing, structures, and highway improvement needs shall be coordinated with the Washington State Department of Transportation.
MA7-I 6C All Federal Energy Regulatory Commission applications inconsistent with preserving the visual resource shall be recommended for denial All small hydro proposals shall be analyzed individually. Cumulative impacts with other proposed or existing small hydros will be considered.
MA7-16D The existing mineral withdrawal shall be reviewed under the Withdrawal Review Program. Some modifications of the existing withdrawal shall be recommended to protect scenic, recreation, fisheries, and wildlife values: to optimize mineral resource availability: and to provide feasible administration.

Roads Standards and Guidelines

MA7-17A Local roads needed for recreational activities shall be reconstructed and/or operated and maintained to encourage highway vehicles All other roads shall be evaluated and inactivated as feasible.
MA7-17B New road construction shall only be allowed to provide access to new developed sites or to provide reasonable access to mineral claims and/or leases. Route selection shall preserve scenic values.

Protection Standards and Guidelines: Fire and Fuels

MA7-19A The preferred suppression strategy is confinement. The Appropriate

Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy shall be used if wildfires threaten capital investments, Management Areas with more restrictive fire management direction, or if resource damage is likely to be unacceptable.
MA7-19B To the extent practicab1e:l) use minimum impact suppression techniques, 2) use indirect attack techniques such as natural fuel breaks and changes in vegetative type and topography, and 3) minimize disturbances resulting from all phases and types of suppression.
MA7-19C Management activity created slash shall be treated to meet scenic/visual objectives and to prevent unnatural fire hazard.

Protection Standards and Guidelines: Insects and Disease

MA7-19D Suppression may be allowed where insects and diseases would adversely affect achieving the resource goals in the area.

Prescription 8

Goal Statement: Preservation of naturally occurring physical and biological units as Research Natural Areas (RNA) where natural conditions are maintained insofar as possible for the purpose of: 1) comparison with those lands altered by management for baseline monitoring; 2) education and research on plant and animal communities; and 3) preservation of gene pools for typical as well as threatened and endangered plants and animals.
Description: This applies to Management Area 8.
Desired Future Condition: Plant communities will be allowed to exist and develop without human intervention to provide representative examples of unaltered communities. Animal populations native to the area will be allowed to exist.

Recreation Standards and Guidelines: Planning

MA8-8A The visual quality objective is retention.
MA8-8B Semiprimitive nonmotorized recreation opportunities shall be provided in the Maple Mountain Research Natural Area. Roaded natural and semiprimitive nonmotorized recreation opportunities shall be provid3ed in the Wolf Creek, Roger Lake, and Chewuch Research Natural Areas during the summer and fall seasons. Semiprimitive motorized recreation opportunities may be provided on designated routes and areas during the winter and spring seasons.

Recreation Standards and Guidelines: Use Administration

MA8-8D Education use of a RNA will generally be directed toward the graduate level, but may be approved for any educational level.
MA8-8E Avoid publicizing research natural areas on recreation maps and in recreation brochures.
MA8-8F On site interpretative signs ay be installed where they contribute to better understanding of or protection for the research natural area.

Recreation Standards and Guidelines: Trails

MA8-8G Now new trails shall be constructed, except those needed for research purposes. Existing trails may be allowed where the goals for the RNA are not compromised.

Fish and Wildlife Standards and Guidelines

MA8-6C Control of animal populations may be considered where they threaten the RNA goals.
MA8-6D Habitat improvement projects may be approved f they meet the goals of the RNA.

Range Standards and Guidelines

MA8-IIA Where grazing is needed to maintain the vegetative communities, the grazing objectives shall be defined in the establishment report,

Timber Standards and Guidelines

MA8-20A Scheduled and non-scheduled timber harvest, including wood gathering activities shall be prohibited.

Lands Standards and Guidelines

MA8-16ATemporary gauging stations and instrument shelters may be approved by the Pacific Northwest Research Station Director.
MA8-1 6B Rights-of-way easements existing prior to the establishment of the RNA shall be honored. Upgrading these facilities shall be discouraged where they compromise the goals of the RNA.
MAS1 6C Recommend against Federal Energy Regulatory Commission licenses or permits that compromise the goals of the RNA.
MA8-16D The proposed Maple Mountain, Chewuch, and Roger Lake Research Natural Areas shall be recommended for withdrawal from locatable mineral entry upon approval for their inclusion into the RNA system.

Facilities Standards and Guidelines

MA8-18A No new road construction should be allowed unless it is developed for preserving or enhancing the RNA values.
MA8-18B Hazard tree felling is permitted along trails or roads for safety. Felled trees shall remain in place, unless lying across a trail or road.
MA8-18C Buildings, other than temporary gauging stations and instrument shelters, shall be prohibited Allow existing buildings to deteriorate without replacement.

Protection Standards and Guidelines: Fire and Fuels

MA8-19A The preferred suppression strategy is confinement. The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is

a viable option. A contain or a control strategy shall be used f wildfires threaten capital investments, Management Areas with more restrictive fire management direction, or resource damage is likely to be unacceptable.
MA8-19B Minimum impact suppression techniques shall be used for all suppression activities The use of chemical fire retardants should be avoided where possible.
MA8-19C Prescribed fire may be used to perpetuate the ecosystems of research natural areas if consistent with the purposes for which the RNA was established. Either natural or planned ignitions may be used. Prescriptions should be designed to mimic natural fire.

Protection Standards and Guidelines: Insects and Disease

MA8-19D Where pest management activities are prescribed, they shall be specific against the target organism and induce minimal impact to other components of the ecosystem.

Prescription 10

Goal statement: Optimize habitat condition and perpetuate a healthy mountain goat population.
Description: This applies to Management Area ID.
Desired Future Condition: Mountain goat habitat will be maintained or improved by restricting timber activities, recreation use which is not compatible with mountain goat use, and access. Habitat will be managed to provide habitat diversity and produce cover and forage.

Recreation Standards and Guidelines: Planning

MA10-8A The visual quality objective is retention in sensitivity level 1 road and trail corridors and modification in all other areas outside the North Cascades Scenic Highway.
MA1 0-8B Roaded natural and semiprimitive non-motorized recreation opportunities should be provided. Semiprimitive motorized recreation opportunities shall be limited to the lower portions of trails #416 and 8431.

Recreation Standards and Guidelines: Facilities

MA108C There shall be no expansion of existing sites and facilities.
MA10-8D New facilities shall not be provided.

Recreation Standards and Guidelines: Use Administration

MA10-8E Recreation special use authorizations for helicopter flights over or landing in areas where goats will be adversely disturbed shall not be issued.

Recreation Standards and Guidelines: Trails

MA10-8F New trail access that encourages use during wintering and kidding season shall not be provided.

Wildlife Standards and Guidelines

MA10-6A Project planning and implementation shall be directed primarily at maintenance of existing cover and forage values. Vegetative manipulation by fire shall occur only after careful study of the habitat in relation to seasonal habits and needs of mountain goats in specific locations. Probable benefits to mountain goats must be assured and justified on a case by case basis.
MA10-6B Cavity nester habitat shall be managed to provide at least 80 percent of potential woodpecker population size where naturally available.

Range Standards and Guidelines

MA10-11A Livestock use should not be increased over existing permitted numbers.
MA10-11B Use of sheep allotments in the goat range shall continue as long as there is a demand. When no interest is expressed to maintain sheep on the allotment for three years, the permit shall be permanently discontinued.

Timber Standards and Guidelines

MA10-20A Scheduled and non-scheduled timber harvest shall be prohibited.

Roads Standards and Guidelines

MA10-17A Motorized traffic shall be prohibited, except for designated through routes.

Protection Standards and Guidelines: Fire and Fuels

MA10-19A The preferred suppression strategy is confinement.
MA10-19B Contain or control wildfires if they threaten resources, capital investments, or enter areas with a more restrictive fire management prescription.
MA10-19C Fuels treatment, including the use of prescribed fire, shall provide for the retention and/or enhancement of key wildlife habitat.
MA10-19D Treat activity fuels to reduce risk to investments and the public.

Protection Standards and Guidelines: Insects and Disease

MA10-19E Insects and diseases may be suppressed when necessary to protect the wildlife habitat values in the area, or when necessary to prevent the spread of insects and diseases to adjacent Management Areas where timber production is a primary emphasis and when projected volume losses would be substantial.

Prescription 11

Goal Statement: Manage bighorn sheep habitat to optimize habitat conditions and perpetuate a healthy population.
Description: This applies to Management Area 11.
Desired Future Condition: Bighorn sheep habitat on the Okanogan Forest, Mt. Hull area

will be managed to maintain a diversity of seral stages to provide cover and forage for bighorn sheep and to provide timber products at a reduced level. Use of the area by domestic sheep is not compatible with the goals of the management area.

Recreation Standards and Guidelines

MA11-8A The visual quality objective is retention where the following characteristics occur:

TABLE 4-24: Retention Visual Quality Objective in Prescription 11

Variety Class	Distance Zone
A	All
B	Foreground

MA11-8B The visual quality objective is partial retention where the following characteristics occur.

TABLE 4-25: Partial Retention Visual Quality Objective in Prescription 11

Variety Class	Distance Zone
B	Foreground & middleground

MA11-8C Roaded natural recreation opportunities shall be provided within view of sensitivity level 1 roads. Semiprimitive non-motorized recreation opportunities shall be provided on the remaining area.

Wildlife Standards and Guidelines

MA11-6A Project planning and implementation shall be directed primarily at maintenance and improvement of cover and forage values. Vegetative manipulation by timber or fire shall occur only after careful study of the habitat in relation to seasonal habits and needs of bighorn sheep.

MA11-6B Manage all identified bighorn sheep habitat for the following well distributed cover:

TABLE 4-26. Percent of Bighorn Sheep Winter

Winter Range Cover	
Snow intercept thermal	≥ 20%
Winter thermal	≥ 15%
Hiding	≥ 5%
Total	≥ 40%

MA11-6C Where natural vegetation is not present to support optimal cover amounts, manage existing vegetation to approach cover objectives on a sustained basis. Where potential is not present as a result of previous management activities, manage to attain these percentages.

MA11-6D Cavity nester habitat shall be managed to provide at least 80 percent of potential woodpecker population size.
MA11-6E Non-structural improvements should be implemented where needed.
MA11-6F Structural improvements and maintenance should be implemented where needed.

Range Standards and Guidelines

MA11-11A Eighty-five percent of the annual available browse shall be reserved for wildlife and 15 percent for domestic livestock. (Refer to forage utilization standards in the FOREST PIAN, CHAPTER 4 - Forestwide Standards and Guidelines).
MA11-11B Domestic sheep grazing shall not occur.

Timber Standards and Guidelines: Planning

MAl1-20A Scheduled and non-scheduled timber harvests shall be designed to perpetuate bighorn sheep habitat and to address current habitat needs.
MA11-20B Prohibit the use of natural or created slash for firewood

Timber Standards and Guidelines: Harvest

MA11-20C Even-aged management shall be practiced in the Moist Productive, Dry Productive, and Lodgepole Pine Working Groups. Even-aged or uneven-aged management may be practiced in the Low Productive Working Group.
MA11-20D A created Opening for wildlife management purposes is defined as an area where dominant conifer regeneration is less than six feet tall following clearcutting, seed tree cutting, or overstory removal cutting.
MA11-20E Rotation length shall be based on meeting structural bighorn sheep habitat needs.
MA11-20F Overstory removal of shelterwood and seed trees shall be scheduled to 1) prevent unacceptable damage to regeneration from logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.

Timber Standards and Guidelines: Reforestation

MA11-20G Western larch composition in stands to be managed for cover should not exceed 20 percent.

Timber Standards and Guidelines: Stand Improvement

MA11-20H Precommercial thinning may be prescribed to provide habitat conditions for bighorn sheep.

Timber Standards and Guidelines: Sale Preparation

MA11-20I Operating season for logging and post sale operations shall be restricted, when necessary to protect roads, soil, water, bighorn sheep, and deer winter range fawning areas and lambing areas To protect fawning (June), lambing (May). and deer during

winters (December through March), the operating season may be restricted on deer winter range, fawning areas, and lambing areas.

Roads Standards and Guidelines

MA11-17A Access by motorized vehicles shall be eliminated or prohibited year- round, except when and where designated open. Winter commercial hauling shall be decided on a case by case basis.

Protection Standards and Guidelines: Fire and Fuels

MA11-19A The preferred suppression strategy is contain control.
MA11-198 Limit acres burned by habitat damaging wildfires.
MA11-19C Fuels treatment, including the use of prescribed fire, shall provide, where practicable, for the retention or improvement of key wildlife habitat.

Protection Standards and Guidelines: Insects and Disease

MA11-19D Suppress insects and diseases when adversely affecting vegetation essential for maintaining wildlife habitat and unacceptable damage to resources would occur if no controls are applied.

Prescription 12

Goal Statement: Provide habitat to support a stable lynx population over the long term while accessing the area for the purpose of growing and producing merchantable wood fiber.
Description: This applies to Management Area 12
Desired Future Condition: Lodgepole pine stands have been identified as an important component of lynx habitat. Desired condition of this Management Area will provide 1) denning habitat (subalpine fir old growth, with a heavy down tree component)-10 percent of the area, 2) forage, hiding, thermal, and stalking cover-30 percent, 3) travel cover-30 percent, and 4) non-habitat (roads, natural openings, created openings)-30 percent.

Recreation Standards and Guidelines

MA12-8A The visual quality Objective is modification in sensitivity level I road and trail corridors and maximum modification in all other areas.
MA12-8B Roaded modified recreation opportunities should be provided.

Wildlife Standards and Guidelines

MA12-6A Manage to provide for cover amounts between 50 and 70 percent per 160 acres of the Lodgepole Pine Working Group. Cover amounts include denning (10 percent), travel (20-30 percent), and forage/hiding/thermal and stalking (20-30 percent) Opening width should be less than 600 feet to facilitate lynx movements.
MA12-6B Nonstructural improvements should be implemented when needed.
MA12-6C Improvements should be implemented and maintained where needed.

Timber Standards and Guidelines: Planning

MA12-20A Scheduled and non-scheduled timber harvest shall be designed to perpetuate lynx habitat and to address current habitat needs.
MA12-20B Firewood use of slash generated by logging and other silvicultural activities shall be provided on a limited basis. When practicable, encourage fire- wood use of non-merchantable live trees to accomplish silvicultural objectives.

Timber Standards and Guidelines: Harvest

MAl2-20C Even-aged management shall be practiced in the Moist Productive, Dry Productive and Lodgepole Pine Working Groups Even-aged or uneven-aged management may be practiced in the Low Productive Working Group.
MA12-20D A created opening for wildlife management purposes is an area where dominant confer regeneration is less than six feet tall following clearcutting, seed tree cutting, or overstory removal cutting.
MA12-20E Overstory removal of shelterwood and seed trees shall be scheduled to 1) prevent unacceptable damage to regeneration from logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.

Timber Standards and Guidelines: Reforestation

MA12-20F No type conversion from lodgepole pine to other species shall be open in the Lodgepole Pine Working Group.

Timber Standards and Guidelines: Sale Preparation

MA12-20G Operating season for logging and post sale operations shall be restricted when necessary to protect roads, soil, water and wildlife resources. To protect lynx reproductive sites, the operating season shall be decided on a case by case basis in denning areas.

Roads Standards and Guidelines

MA12-17A Roads shall be planned, constructed and managed to limit disturbance to lynx in coordination with the Washington State Department of Wildlife.
MA12-17B To limit wildlife disturbance, road density shall be limited to one mile of road open to motorized use per square mile of discreet individual Management Area
MAI2-17C On local roads, public access shall be discouraged or prohibited during periods of commercial hauling. High clearance vehicles should be accept- ed during post sale activities and all motorized traffic shall be discouraged or eliminated after post sale activities.
MA12-17D During winter months (December - March), all motorized vehicles, including snowmobiles, shall be restricted by regulation to areas and routes designated open.

Protection Standards and Guidelines: Fire and Fuels

MA12-19A The preferred suppression strategy is contain/control.

MA12-19B Limit acres burned by habitat damaging wildfires.
MAl2-19C Prescribed fire (planned and unplanned ignitions) may be used as a management tool to meet Management Area goals.
MA12-19D Fuels treatment, including the use of prescribed fire, shall provide, where practicable, for the retention of key wildlife habitat and shall be consistent with silvicultural objectives.

Protection Standards and Guidelines: Insects and Disease

MA12-19E When practicable, suppress insects and diseases adversely affecting vegetation essential for maintaining wildlife habitat and unacceptable damage to resources would occur f no controls are applied.

Prescription 14

Goal Statement: Provide a diversity of wildlife habitat, including deer winter range, while growing and producing merchantable wood fiber.
Description: This applies to Management Area 14.
Desired Future Condition: Deer winter ranges will provide habitat conditions including proper juxtaposition of forage and cover areas, to sustain desired deer population levels Dead tree habitat will be provided at a moderate level to support cavity dependent species. Even-age stands, and stands representing different age classes, species mix, and with variable structure will be found across the Forest.

Recreation

MA14-8A The visual quality objective is modification in all sensitivity level 1 road and trail corridors. and maximum modification in all other areas.
MA14-8B Roaded modified recreation opportunities should be provided.

Wildlife

MA14-6A Manage all identified deer winter range for the following well-distributed cover:

TABLE 4 -27 Characteristics of Deer Winter Range Cover by Area in Prescription 11

Winter Range Cover	East of the Okanogan River	Methow and Other
Snow intercept thermal	≥ 25%	≥ 15%
Winter thermal	≥ 5%	≥ 25%
Hiding	≥ 15%	≥ 0%
total	≥ 45%	≥ 40%

MA14-6B Where natural vegetation is not present to support optimal cover amounts, manage existing vegetation to approach cover objectives on a sustained basis. Where potential is not present as a result of previous management activities. manage to attain these percentages.

MAI4-6C Minimum cover amounts shall be 40 percent (20 percent hiding and 20 percent summer thermal cover) on the gross Management Area acreage and well distributed.
MA1 4-6D Non-structural improvements should be implemented as needed.
MA14-6E Structural improvements and maintenance should be implemented as needed.

Range

MA14-11A Eighty-five percent of the annual available browse shall be for wildlife and 15 percent for domestic livestock. (Refer to forage utilization standards in the FOREST PLAN, CHAPTER 4 - Forestwide Standards and Guidelines).
MA14-20A Scheduled and non-scheduled timber harvests shall be designed *to* perpetuate wildlife habitat and to address current habitat needs.
MA14-20B To the extent practicable, firewood use of slash generated by logging and other silvicultural activities shall be encouraged When practicable, encourage firewood use of non-merchantable live trees to accomplish silvicultural objectives.
MA14-20C Even-aged management shall be practiced in the Lodgepole Pine Working Group Even-aged or uneven-aged management may be practiced in the Moist Productive, Dry Productive, and Low Productive Working Groups.
MA1 4-20D A created opening for wildlife management purposes is an area where dominant conifer regeneration is less than six feet tall following clearcutting, seedtree cutting, or overstory removal cutting.
MA14-20E Overstory removal of shelterwood and seed trees shall be scheduled to 1) prevent unacceptable damage to regeneration from logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.
MA14-20F Western larch composition in stands to be managed for cover should not exceed 20 percent.
MA14-20G Operating season for logging and post sale operations shall be restricted where necessary to protect roads, soil, water, and wildlife resources. To protect fawning (June) and deer during winters (December through March), the operating season shall be decided on a case by case basis in fawning areas and deer winter range.

Roads Standards and Guidelines

MA14-17A To limit wildlife disturbance, road density shall be limited to two miles of road open to motorized use per square mile of discreet individual Management Area Exceptions to this road density may be permitted provided they meet the goals of the Management Area.

Protection Standards and Guidelines: Fire and Fuels

MA14-17B Access by motorized vehicles shall be prohibited on deer winter range, December through March, except for designated through routes. Winter haul may be permitted provided the goals of the Management Area are met.
MA14-17C East of the Okanogan River, winter logging and hauling should not be restricted but access by motorized vehicles not associated with logging/hauling and administrative use shall be prohibited December I to March 31 except on designated through routes.

MA14-17D On local roads, public access shall be discouraged or prohibited during commercial hauling. High clearance vehicles should be accepted during post sale activities.
MA14-19A The preferred suppression strategy IS contain/control.
MA14-19B Limit acres burned by habitat damaging wildfires.
MA14-19C Treat fuels to reduce the risk of wildfire to acceptable levels. Prescribe a level of fuel treatment to protect timber stands, wildlife values, and other re- sources from unacceptable losses caused by wildfire.
MA14-19D Place fire tolerant stands on a prescribed burning schedule where cost effective to meet management goals.

Insect and Disease

MAl4-19E Suppress insects and diseases when adversely affecting vegetation essential for maintaining wildlife habitat and/or unacceptable damage to resources would occur if no controls are applied.
MA14-19F Stands where uneven-aged management is applied shall be generally free of serious pathogens such as root rots and dwarf mistletoe.

Prescription 15A

Goal Statement: Maintain an extensive unmodified pristine environment within designated wilderness without system trails.
Description: This applies to Management Area 1.54.
Desired Future Condition: An area where natural processes and conditions will not be measurably affected by the actions of visitors. Area will be managed to be as free as possible from the influence of human activities. Area will provide the most outstanding opportunity for isolation and solitude, free from evidence of past visitor activities and with very infrequent encounters with other visitors. The visitor will have outstanding opportunities to travel cross-country utilizing a maximum degree of primitive skills, often in an environment that offers a high degree of challenge and risk.

Wilderness Standards and Guidelines: Planning

MA15A-21A The visual quality Objective is preservation.
MA15A-21B Primitive recreation opportunities shall be provided.
MA15A-21C All human activities shall follow a non-degradation policy.
MA15A-21DUse data gathering should emphasize voluntary registration system at trailheads or contacts at offices and trailheads rather than contacts within wilderness.
MA15A-21 E Except for emergency orders, Forest orders pertaining to wilderness regulation shall be discussed with concerned publics prior to adoption.

Wilderness Standards and Guidelines: Facilities

MA15A-21F Facilities for visitor use shall only be provided for protection of the wilderness resource and as a last resort, only after trying information and education, indirect management methods, or regulation of use.

Use Administration

MA15A-2lG Minimum impact techniques shall be used.
MA15A-21H The number and types of encounters between users should be controlled by limiting trailhead parking, maintaining or increasing the amount of difficult access, or by separating users.
MA15A-21I Campsites should be located within forested areas on litter where possible. Sites should be located to take advantage of topographic or vegetative screening.
MA15A-21 J Campsites should not be visible (within 500 feet) or audible from any other camp site.
MA15A-21K Campsites should be located at least 200 feet slope distance from meadows, lakes, streams, and key interest areas Camping may be restricted or prohibited in certain areas to protect wilderness values.
MA15A-21L Leaving or storing equipment, personal property, or supplies unattended for more than 48 hours shall be prohibited. Written exceptions may be granted by the District Ranger upon request.
MA15A-2lM Maximum party size shall be 12 people and 18 head of stock.
MA15A-21N There should be at least an 80 percent probability of not more than one encounter per day between groups during all use periods.
MA15A-21O Pets may be restricted for protection of wildlife or to decrease re- source impacts.
MAl5-21P Grazing, hitching, tethering, or hobbling recreation pack and saddle stock within 200 feet slope distance of the shoreline of any lake shall be prohibited.
MA15A-21Q Possessing or transporting unprocessed hay or grain livestock feed shall be prohibited. Written exceptions may be granted by the District Ranger upon request for State or Federally approved weed-free feed.
MA15A-21R Outfitter guide authorizations consistent with area direction may be issued.
MA15A-21S Reserved (base) camps shall not be allowed.
MA15A-21T Management control necessary to protect the ecological and social elements throughout the area may be evident outside wilderness, particularly at trailheads and boundary portals.
MA15A-12U Information service shall be designed to help meet management objectives rather than to promote use.
MA15A-21V Patrols and monitoring of conditions by Forest Service and other appropriate State and Federal agency personnel shall only be conducted as necessary to achieve management objectives.

Trails Standards and Guidelines

MA15A-21W System trails shall not be allowed. Existing system trails shall be allowed to brush in or shall be returned to as near a natural condition as possible.
MA1 5A-21X User created travel routes should not be readily apparent or should appear to be wildlife trails. There shall be no maintenance of user created travel routes.
MA15A-21Y Average user created travel route density shall be less than 0.4 miles per section.
MA1 5A-21Z User created travel routes shall not be shown on Forest Service maps or trail guides.

MA15A-21AA Bridges shall not be provided or replaced.
MA15A-21 BA Only signing necessary for wilderness resource protection shall be provided.

Fish and Wildlife Standards and Guidelines

MA15A-6A Fish and wildlife indigenous to the wilderness shall be maintained with emphasis on threatened and endangered species.
MA15A-3A Lakes approved for fish stocking shall not be aerially stocked.
MA15A-3B Cleaning of debris that impedes the migratory movements of fish on primary spawning streams may be permitted.
MA15A-6B Visitor use shall not decrease habitat effectiveness for any species by more than ten percent.
MA15A-3C Only those barren waters where scientific and research values will not be eliminated shall be considered for stocking.
MA15A-6C Exclosure structures shall not be allowed.
MA15A-6D Visitor use shall seldom and only temporarily displace wildlife populations.

Vegetation Standards and Guidelines

MA15A-22A There shall be no long-term modification of natural plant succession as a result of human activities. Acceptable modifications are those which can recover in one growing season.
MA15A-22B Vegetation loss should not exceed 225 square feet (0.5 percent of any acre) at any impacted site.
MA15A-22C There should be no loss of trees from recreation activities.
MA15A-22D There should be fewer than two trees with exposed roots per impact- ed sites.
MA15A-22E Standing snags should be left, except that removal of snags during fire suppression efforts shall be determined on a case by case basis.
MA15A-22F Firewood gathering may be permitted for use on site and shall be limited to dead and down material. Firewood gathering shall be restricted where necessary. Use of small fires and self contained stoves shall be encouraged.

Range Standards and Guidelines

MA15A-11A Domestic livestock grazing allotments shall not be authorized.

Noxious Weeds Standards and Guidelines

MA15A-12A Noxious weeds may be controlled when they threaten lands outside wilderness or when they are spreading within wilderness; provided control is possible without causing serious adverse impacts to wilderness values.

Soil and Water Standards and Guidelines

MA15A-13A Displacement and erosion of soil resulting from human activity shall be limited to a rate that closely approximates the natural process.

MA15A-13B Soil compaction from human activities should not prevent natural plant establishment and growth.
MA15A-13C There should be no measurable degradation of water quality as a result of human activities.

Minerals Standards and Guidelines

MA15A-15A Access to existing valid claims and/or leases shall be by methods which create the least lasting impact on the wilderness resource, while still meeting the needs of the claimant and staying within applicable laws and regulations.

Lands Standards and Guidelines

MA15A-16A The USDI, Geological Survey cabin near Freezeout Creek shall be renewed to determine the need for retaining.

Facilities Standards and Guidelines

MA15A-18A Permanent communication facilities shall not be installed.
MA15A-18B Existing inventoried helispots shall not be improved or maintained and shall be allowed to revegetate naturally.
MA15A-18C Remote automated weather stations shall not be installed.

Protection Standards and Guidelines: Fire and Fuels

MA15A-19A The preferred suppression strategy for lightning caused wildfires is confinement. The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy should be used d wildfires: 1) threaten significant cultural resources or capital investments, 2) have the potential to cross the U.S./Canadian border, 3) threaten Management Areas with more restrictive fire management direction. or 4) will result in unacceptable off site impacts.
MA15A-19B When containment or control action is the selected fire management strategy, wilderness suppression guidelines shall be applied.
MA15A-19C Planned ignition shall not be used to indicate prescribed fire in wilder- ness areas.
MA15A-19D Prescribed fire ignited by lightning may be used to meet wilderness fire management objectives of: 1) reducing the risks and consequences of wild- fire within the wilderness or escaping from the wilderness, and 2) permitting lightning caused fires to play, as nearly as possible, their natural ecological role within wilderness.
MA15A-19E A prescribed fire plan shall be approved prior to the use of prescribed fire in the wilderness.

Protection Standards and Guidelines: Insect and Disease

MA15A-19F Insect or disease outbreaks shall not be artificially controlled unless it IS necessary to prevent unacceptable resource damage to resources on adjacent lands or an unnatural loss to the wilderness resource. If control becomes necessary, it shall be carried out by measures that have the least adverse impact on the wilderness resource and are compatible with wilderness objectives.

Prescription 15B

Goal Statement: Maintain a predominately unmodified primitive environment within designated wilderness with a variety of trail opportunities.
Description: This applies to Management Area 15B.
Desired Future Condition: An area with a minimum of on site controls and restrictions, and where the presence of controls will be subtle. Facilities will only be provided for protection of wilderness resource values. Materials should be native where possible and in all cases will be natural appearing. Area will provide a high to moderate opportunity for exploring and experiencing isolation and solitude, independence, closeness to nature, tranquility, and self-reliance through the application of primitive skills in an environment that offers a high to moderate degree of challenge and risk.

Wilderness Standards and Guidelines: Planning

MA15B-21A The visual quality objective is preservation
MA15B-21B Primitive recreation opportunities shall be provided.
MA15B-21C Use of nature and natural materials for facilities shall dominate. Use of dimensional and non-nature material should remain subtle to the wilderness user.
MA15B-21D All human activities shall follow a non-degradation policy.
MA15B-21E Use data gathering should emphasize voluntary registration system at trailheads or contacts at offices and trailheads rather than contacts within wilderness.
MA15B-2F Except for emergency orders, Forest orders pertaining to wilderness regulation shall be discussed with concerned publics prior to adoption.

Wilderness Standards and Guidelines: Facilities

MA15B-21G Facilities for visitor use shall only be provided for protection of the wilderness resource and as a last resort, only after trying information and education, indirect management methods, or regulation use.

Wilderness Standards and Guidelines: Use Administration

MA15B-21H Minimum impact techniques shall be used.
MA15B-21I The number and types of encounters between users should be con- trolled by limiting trailhead parking, maintaining or increasing the amount of difficult access, or by separating uses.
MA15B-21J Campsites should be located within forested areas on litter, where possible Sites should be located to take advantage of topographic or vegetative screening.
MA15B-21K There should be an 80 percent probability of two or fewer campsites being visible or audible from any campsite.
MA15B-21L Campsites should be located at least 200 feet slope distance from meadows, lakes, streams, and key interest areas. Camping may be restricted or prohibited in certain areas to protect wilderness values.
MA15B-21M Leaving or storing equipment, personal property, or supplies unattended for more than 48 hours shall be prohibited. Written exceptions may be granted by the District Ranger upon request.

MA15B-21N Maximum party size shall be 12 people and 18 head of stock. Written exceptions may be granted when:

1) Application is made to the District Ranger,
2) Campsites and travel routes are capable of physically and socially absorbing such use.
3) Use will not occur during heavy use periods.
4) There will be no more than one oversized party at a time on a trail or popular use route or in a destination area.
5) The oversized group will not occupy most of a destination area.
6) Travel will be in groups not exceeding 12 people or 18 head of stock and separated in time on the same trail.
7) For commercial parties, all oversized groups shall be considered temporary use.

MA15B-21O There should be at least an 80 percent probability of not more than seven encounters per day between groups while traveling on trails during all use periods.
MA15B-21P Pets may be restricted for the protection of wildlife or to decrease resource impacts.
MA15B-21Q The current number and type of outfitter guide authorizations and the current amount of priority use allocated to outfitter guides shall be retained.
MA15B-21R Only those camp structures and facilities necessary for the outfitter guide to properly meet their public service in a manner compatible with the wilderness environment shall be authorized. For commercial parties, all oversized groups shall be considered temporary.
MA15B-21S Grazing, hitching, tethering, or hobbling recreation pack and saddle stock within 200 feet slope distance of the shoreline of any lake shall be prohibited.
MA15B-21T Possessing or transporting unprocessed hay or grain livestock feed shall be prohibited. Written exceptions may be granted by the District Ranger upon request for State or Federally approved weed-free feed.
MA15B-21U All camp structures and facilities shall be temporary in nature and shall be located away from main trails, streams, lakes, key interest features, and non-outfitted public use areas.
MA15B-21V The number and location of reserved (base) camps shall be specified in individual special use authorizations, based on the availability of good camp- sites, the needs of the outfitter guide, and the needs of the non-outfitted public. The special use authorization shall describe allowable structures and facilities, maintenance requirements, and use periods for each reserved camp.
MAl5B-21W All structures and facilities at outfitter camps shall be dismantled at the end of the annual use season Storage of dismantled structures and facilities may be allowed at locations specified in special use authorizations.
MA15B-21X Spike camps may be authorized under special use authorizations, but shall be unreserved.
MA15B-21Y Management control necessary to protect the ecological and social elements throughout the area may be evident outside wilderness, particularly at trailheads and boundary portals.
MA15B-21Z Information service shall be designed to help meet management objectives rather than to promote use.

MA15B-21AA Periodic to moderate presence of personnel engaged in monitoring or project work may be evident Project work should be scheduled during low use periods where practicable.

Wilderness Standards and Guidelines: Trails

MA15B-21BB Trails shall be constructed, reconstructed, and maintained to the difficulty level appropriate to the target user group. Trails should generally be more difficult to most difficult.
MA15B-21CC Trails or trail segments not necessary to meet area objectives shall be allowed to brush in or shall be returned to as near a natural condition as possible.
MA15B-21DD System trails shall not access all attraction features, such as lakes. When trail access is constructed to attraction features, only spur trails shall be constructed.
MA15B-21EE User created travel routes shall not be readily apparent or should appear to be wildlife trails. There shall be no maintenance of user created travel routes. Average user created travel route density shall be less than 0.8 miles per section.
MA15B-21FF User created travel routes shall not be shown on Forest Service maps or trail guides.
MA1 58-21GG Bridges shall only be provided or replaced when: I) no other route or crossing is reasonably available, 2) the crossing, during the primary season of public use, cannot be negotiated afoot safely, or cannot be forded by horses safely, 3) unacceptable bank damage will occur from visitors seeking a crossing, or 4) flood waters frequently destroy or damage less sturdy structures.
MAISB-21HH A maximum of two directional signs with a maximum of two route locations per sign may be placed at trail junctions. Distances shall not be provided, except that existing signs meeting this direction may remain until replacement is needed.

Fish and Wildlife Standards and Guidelines

MA15B-6A Fish and wildlife indigenous to the wilderness shall be maintained with emphasis on Threatened and Endangered Species.
MA15B-3A In the Pasayten Wilderness, only the following lakes shall be aerially stocked:

Airview	Eagle	Halfmoon	Ramon
Buckskin	Fawn	Heather	Remmel
Cathedral, Lower	Ferguson	Hidden	Remmel, N.
Cathedral, Upper	Four Point	Hopkin	Sheep
Covial	Fox	Lease	Smith
Cougar	Freds	Peep Sight	Tungsten
Crow	Frosty	Ptarmigan	
Dead	Glory	Quartz	

MA15B-3B Cleaning of debris that impedes the migratory movements of fish on primary spawning streams may be permitted.
MA15B-6B Visitor use shall not decrease habitat effectiveness for any species by more

than 20 percent.
MA15B-3C Only those barren waters where scientific and research values will not be eliminated shall be considered for stocking.
MA15B-6C Temporary exclosure structures may be used to determine the impact of wildlife on wilderness values.
MA15B-6D Visitor use shall not displace wildlife from critical areas during critical periods.

Vegetation Standards and Guidelines

MA15B-22A There should be no long-term modification of natural plant succession as a result of human activities on areas outside campsites, administrative sites, and designated tml tread. Acceptable modifications are those which can recover in one growing season.
MA15B-22B Vegetation loss should not exceed 400 square feet (one percent of any acre) at any impacted site.
MA15B-22C There should be no lass of trees from recreation activities.
MA1 58-22D There should be fewer than four trees with exposed roots per impacted sites.
MA15B-22E Standing snags should be left, except where removal is necessary to protect major bridges and administrative facilities. Removal of snags during fire suppression efforts shall be determined on a case by case basis.
MA15B-22F Vegetative impacts along trails shall be confined to the planned location and to meet individual trail objectives.
MA15B-22G Firewood gathering may be permitted for use on site and shall be limited to dead and down material. Firewood gathering shall be restricted where necessary. Use of small fires and self-contained stoves shall be encouraged.

Range Standards and Guidelines: Planning

MA15B-11A Domestic livestock grazing allotments shall be limited to those allotments under permit at the time of the establishment of the wilderness.
MA15B-11B The forage resource shall be utilized in conformance with all wilderness resource values.
MA15B-11C AMPs shall document the need for use of motorized vehicles, motorized equipment, or other forms of mechanical transport based on the rule of practical necessity and reasonableness.

Range Standards and Guidelines: Improvements

MA15B-11D New structural and non-structural improvements necessary to protect the range and/or wilderness resource, rather than to increase the number of livestock, may be constructed.
MA15B-11E New or existing improvements shall be of materials which harmonize with the wilderness character of the areas long as the use of such materials does not greatly increase costs to permitees.
MA15B-11F Existing, necessary range improvements may be maintained. Those determined unnecessary shall be phased out.

Noxious Weeds Standards and Guidelines

MA15B-12A Noxious weeds may be controlled when they threaten lands outside wilderness or when they are spreading within wilderness, provided control is possible without causing serious adverse impacts to wilderness values.

Soil and Water Standards and Guidelines

MA15B-13A Displacement and erosion of soil resulting from human activity shall be limited to a rate that closely approximates the natural process.
MA15B-13B Soil compaction from human activities should not prevent natural plant establishment and growth except at some campsites, administrative facilities, and in designated tread.
MA15B-13C Human activities should not degrade water quality except for temporary changes where water quality returns to its normal level when the activity ceases.
MA15B-13D The existing level of Big Hidden Lakes shall be retained by maintaining the upper diversion ditch and middle diversion dam, using primitive hand methods. No repairs shall be made on the lower dam.

Minerals Standards and Guidelines

MA15B-15A Access to existing valid claims and/or leases shall be by methods which create the least lasting impact on the wilderness resource, while still meeting the needs of the claimant and staying within applicable laws and regulations.

Lands Standards and Guidelines

MA15B-16A The USDI, Geological Survey stream gauging station at Andrews Creek shall be removed.

Facilities Standards and Guidelines

MA15B-18A The War Creek Administrative Site shall not be retained for administrative purposes. Management of the War Creek Site shall be determined following a cultural resource evaluation.
MA158-18B The Spanish Camp, Stub Creek, Big Home, and Pasayten Airport Administrative Sites shall be retained for administrative purposes. Site plans shall be developed and only necessary structures shall be retained.
MA15B-18C The Pasayten Airstrip shall remain closed to aircraft use The Federal Aviation Association shall be encouraged to remove the airstrip from aircraft charts. The airstrip shall be allowed to revegetate naturally.
MA15B-18D Monument 83 and Slate Peak Lookouts should be returned. Additional lookouts shall not be constructed.
MA15B-18E Permanent communication facilities should be retained at Monument 83 Additional permanent communication facilities shall not be installed.
MA15B-18F Existing inventoried helispots shall not be improved or maintained and shall be allowed to revegetate naturally.
MA15B-18G Remote automated weather stations shall not be installed.

Protection Standards and Guidelines: Fire and Fuels

MA15B-19A The preferred suppression strategy for lightning caused wildfires is confinement The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or control strategy should be used if wildfires: 1) threaten significant cultural resources or capital investments, 2) have the potential to cross the U S./Canadian border, 3) threaten Management Areas with more restrictive fire management direction, or4) will result in unacceptable off site impacts.
MA15B-19B When containment or control action is the selected fire management strategy, wilderness suppression guidelines shall be applied.
MA15B-19C Planned ignition shall not be used to initiate prescribed fire in wilder- ness areas.
MA15B-19D Prescribed fire ignited by lightning may be used to meet wilderness fire management objectives of: 1) reducing the risks and consequences of wild- fire within the wilderness or escaping from the wilderness, and 2) permitting lightning caused fires to play, as nearly as possible, their natural ecological role within wilderness.
MA15B-19E A prescribed fire plan shall be approved prior to the use of prescribed fire in the wilderness

Protection Standards and Guidelines: Insect and Disease

MA15B-19F Insect or disease outbreaks shall not be artificially controlled unless it is necessary to prevent unacceptable resource damage to resources on adjacent lands or an unnatural loss to the wilderness resource. If control becomes necessary, it shall be carried out by measures that have the least adverse impact on the wilderness resource and are compatible with wilderness Objectives.

Prescription 17

Goal Statement: Provide a variety of developed recreation opportunities in a roaded setting.
Description: This prescription applies to Management Area 17. The area allocated to this use includes only the specific site development.
Desired Future Condition: Facilities will be provided where opportunities for meaningful experiences are present and where the setting ranges from predominantly natural appearing to substantially urbanized. The probability of experiencing affiliation with other users will be prevalent as will be the convenience of facilities. the setting and opportunities for challenge and risk and the testing of outdoor skills is generally unimportant except for activities such as downhill skiing. Concentration of users ranges from low to high. Sites will be managed in such a way that controls and restrictions are obvious.

Recreation Standards and Guidelines: Planning

MA17-8A The visual quality objective ranges from retention to modification.
MA17-8B Roaded natural, roaded modified, rural, and urban recreation opportunities shall be provided based on the management emphasis of the surrounding area and the goals

and objectives of the individual site.
MA17-8C Sites may be at all development scales 1 to 5 based on individUa1 site goals and objectives.
MA17-8D Vegetative management plans shall be completed for all sites. Vegetative management includes tree removal, thinning, planting, and other cultural activities necessary to maintain or enhance the recreation resource, including snag management for interpretive purposes or wildlife habitat.

Recreation Standards and Guidelines: Facilities

MA17-8E All facilities at fee sites and trailheads leading to classified areas or recreation management emphasis areas shall be maintained to maintenance Class 1 standards.
MA17-8F Facilities at non-fee sites may be maintained to less than maintenance Class 1 standards.
MA17-8G Isolated, low use sites may be converted to dispersed use considering factors such as 1) excess capacity within the locale, 2) duplication of kinds of sites and recreation opportunities, 3) costs exceeding public benefits, or 4) facility conditions not warranting further expenditure or rehabilitation.
MA17-8H New site construction, existing site expansion, and major site upgrading shall be permitted to maintain or enhance recreation opportunities or when seasonal occupancy of existing sites exceeds 45 percent of theoretical capacity.

Recreation Standards and Guidelines: Use Administration

MA17-8I Existing recreation residence tracts shall be retained.
MA17-8J Systems at downhill ski areas shall be monitored for compliance with the area operation plan.
MA17-8K Development at the Early Winters Alpine Winter Sports Ste and Loup Loup Ski Area shall be authorized according to approved masters site development plans.
MA17-8L Existing organization sites shall be retained. Site plans shall be revised prior to installation of any facilities not included on the current site plan.
MA1 7-8M 'Future use determination' for all government-owned improvements under Granger-Thye permit shall be completed prior to authorizing a new use or transferring use. A five-year operation and maintenance plan shall be completed If the decision is to continue use of improvements.

Range Standards and Guidelines

MA17-11A Domestic livestock grazing should generally be excluded from developed recreation sites, but may be allowed where compatible with site objectives

Timber Standards and Guidelines

MA17-20A Scheduled timber harvest shall not be permitted.
MA17-20B Selective removal of individual or groups of trees shall be prescribed on a nonscheduled basis to enhance scenic or recreation opportunities or to accomplish vegetative management goals.

MA17-20C Prohibit firewood gathering for off site use.

Roads Standards and Guidelines

MA17-17A Roads within the developed site shall be reconstructed, constructed, and/or operated and maintained to encourage highway vehicles and to a level commensurate with the design level of the site.

Protection Standards and Guidelines: Fire and Fuels

MA17-19A The preferred suppression strategy is control.
MAl7-19B Minimum impact suppression techniques should be used to minimize site disturbance.
MA17-19C Fuels shall be treated to meet visual and recreation objectives and to eliminate, to the maximum extent possible, the probability of a wildfire that will damage the recreation resource.

Protection Standards and Guidelines: Insect and Disease

MA17-19D Control insect and disease infestations to provide a safe environment for recreation users, to protect facilities, and to prevent the spread of introduced pests to the surrounding Management Areas.

Prescription 18

Goal Statement: Maintain lands where unusual plant communities or associations occur to provide opportunities for botanical research and education.
Description: This applies to Management Area 18.
Desired Future Condition: Plant communities will be allowed to exist and develop to provide representative examples of unaltered communities. Animal populations native to the area will be allowed to exist. Maintain plant communities and values for which the area was established.

Recreation Standards and Guidelines

MA18-8A The visual quality objective is retention.
MA18-8B Semiprimltive non-motorized recreation opportunities shall be provided during the summer and fall seasons. Semiprimitive motorized recreation opportunities should be provided during the winter and spring seasons, but may be restricted to designated routes and areas.

Wildlife Standards and Guidelines

MA18-6A Animal populations which threaten the maintenance of the unusual plant communities or associations may be controlled.

Range Standards and Guidelines

MA18-11A Grazing of domestic livestock may be permitted where a level of casual or incidental use can be defined and is consistent with the goals of the Management Area.
MA18-11B Livestock grazing shall be allowed where it is necessary to perpetuate the plant community.

Timber Standards and Guidelines: Fire and Fuels

MA18-20A Scheduled and non-scheduled timber harvest shall be prohibited.

Facilities Standards and Guidelines

MA18-18A No new road construction should be allowed unless it is developed for preserving or enhancing the Management Area values.
MA18-18B Hazard tree falling is permitted along boundary trails or roads for safety. Felled trees shall remain in place, unless lying across a trail or road.

Protection Standards and Guidelines: Fire and Fuels

MA18-19A The preferred wildfire suppression strategy is contain/control.
MA18-19B Prescribed fire, using either planned or unplanned ignitions, may be used to maintain the ecosystems and unusual plant communities.

Protection Standards and Guidelines: Insect and Disease

MA18-19C No action should be taken against insects and diseases unless an outbreak threatens the plants being protected or is inconsistent with the management goals for the adjacent areas.

Prescription 24

Goal Statement: Provide minerals exploration and development opportunities while retaining, to the extent possible, existing natural conditions.
Description: This applies to Management Area 24.
Desired Future Condition: Minerals exploration and development opportunities will be provided in areas generally Characterized by a natural or naturally appearing environment. Recreation and wildlife opportunities consistent with the natural setting may be provided. Roads will not be constructed, except where reasonably necessary for mineral activities.

Recreation Standards and Guidelines

MA24-8A The visual quality objective is retention Exceptions are permitted for mineral exploration and development.
MA24-8B Semiprimtive non-motorized recreation opportunities should be provided in Pasayten Rim and semiprimtive motorized recreation opportunities in Bodie Mountain.

Range Standards and Guidelines

MA24-11A Manage commercial livestock to reduce conflicts with recreationists.

Timber Standards and Guidelines

MA24-20A Scheduled timber harvest shall not occur.
MA24-20B Sanitation and salvage harvest may occur based on the following criteria: 1) when necessary for mineral exploration or development, 2) when necessary to protect the recreation and scenic values in the area or in adjacent Management Areas, and 3) when necessary to prevent the spread of disease or insects to adjacent Management Areas where timber production is a primary emphasis and projected volume losses would be substantial.

Minerals Standards and Guidelines

MA24-15A Salable mineral disposal or use should be excluded except where necessary for locatable or leasable mineral exploration or development activities.

Wildlife Standards and Guidelines

MA24-6A Wildlife habitat maintenance and improvements shall be compatible with the goals of the Management Area.

Roads Standards and Guidelines

MA24-17A Roads shall not be constructed except where necessary to provide reasonable access for minerals exploration and development. Where practicable, roads will be limited to primitive traffic service level **D** roads. Non-minerals use of these roads may be restricted to protect other resource values.

Protection Standards and Guidelines

MA24-19A The preferred suppression strategy is confinement. The Appropriate Suppression Response Implementation Plan shall be used to confirm that confinement is a viable option. A contain or a control strategy shall be used if wildfires threaten capital investments, Management Areas with more restrictive fire management direction, or if resource damage is likely to be unacceptable.
MA24-19B To the extent practicable: 1) use minimum impact suppression techniques; 2) use indirect attack techniques such as natural fuelbreaks, and changes in vegetative type and topography: and 3) minimize disturbances resulting from all phases and types of suppression.

Prescription 25

Goal Statement: Intensively manage the timber and range resources using both even-aged and uneven-aged Silvicultural practices. Manage to achieve a high present net value and a high level of timber and range outputs while protecting the basic productivity of the

land and providing for the production of wildlife, recreation opportunities, and other resources.
Description: This applies to all lands in Management Area 25.
Desired Future Condition: On suitable lands in the Moist Productive and Dry Productive Working Group that are capable of producing 20 cubic feet per acre CMAI, stands will be well stocked and thrifty. Even-aged stands, and stands representing different age classes, species mix, and with variable structure will be found across the Forest. On suitable lands in the Lodgepole Pine Working Group that are capable of producing at least 20 cubic feet per acre CMAI, stands will be well stocked and thrifty. Even-aged stands of different age classes will be found across the Forest. On lands that are in the Low Productive Working Group, or that are unsuitable for timber production, stands would be variable in structure. Even-aged stands would predominate in lodgepole pine dominated forest types. Both even and all aged stands would be found in the mixed conifer dominated types. Well developed access will permit intensive management of productive stands in all working groups. Suitable, non-transitory range will be in good condition. Transitory range will be managed in a manner compatible with silvicultural objectives.

Recreation Standards and Guidelines

MA25-8A The visual quality objective is modification in sensitivity level 1 road and trail corridors and maximum modification in other areas.
MA25-8B Roaded modified recreation opportunities should be provided.

Wildlife Standards and Guidelines

MA25-6A Minimum cover amounts shall be 30 percent (15 percent hiding and 15 percent summer thermal cover) of the gross Management Area acreage and well distributed.

Range Standards and Guidelines

MA25-11A Specific allotments, and portions of allotments that will be intensively managed for transitory range shall be identified according to the following criteria:

1) Intensive transitory range management practices and techniques shall be applied to blocks of at least 100 acres.
2) Specific areas where intensive transitory range management practices will be applied shall be determined following site specific, interdisciplinary analysis associated with the updating and revision of AMPs. Priority should be given to using intensive transitory range to reduce grazing impacts to resources such as riparian areas, recreation uses, or other portions of the range.
3) Up to five percent of suitable timber lands may be managed with intensive transitory range practices.

MA25-11B Bring fair and poor condition suitable non-transitory rangelands to good condition.
MA25-11C Maintain improvements on suitable rangelands.
MA25-11D With improvements, meet “2’ or ‘D‘ level management on suitable non-

transitory rangelands where economically desirable.
MA25-11E Transitory range structural and nonstructural improvements and grazing systems shall be designed subject to silvicultural, wildlife, and other resource objectives.

Timber Standards and Guidelines: Planning

MA25-20A To the extent practicable, firewood use of slash generated by logging and other silvicultural activities shall be encouraged. When practicable, encourage firewood use of non-merchantable live trees to accomplish silvicultural objectives.
MA25-20B Where intensive transitory range management is practiced, crown closure should be maintained at less than 50 percent for at least half of the rotation, and even-age, silviculture shall be applied.
MA25-20C Non-scheduled timber harvest on lands unsuited for timber production may be used to achieve range and other multiple use resource goals for this Management Area.

Timber Standards and Guidelines: Harvest

MA25-20D Rotation length in even-aged stands shall be based on maximizing present net value and achieving 95 percent CMAI.
MA25-20E Overstory removal of shelterwood and seed trees shall be scheduled to **1)** prevent unacceptable damage to regeneration f" logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.
MA25-20F Uneven-aged or even-aged management may be practiced in the Moist Productive, Dry Productive, and Low Productive Working Groups.
MA25-20G Even-aged management shall be applied in the Lodgepole Pine Working Group.
MA25-20H Stands should be harvested as early as possible following 95 percent CMAI, where transitory range values are to be maximized and when intensive range management is scheduled.

Timber Standards and Guidelines: Stand Improvement

MA25-20I On lands suitable for timber production and selected for transitory range management, crop tree stocking following precommercial thinning shall produce a high volume increment while maximizing the period that crown closure is less than f@ percent during the rotation. In even-aged stands where no commercial thins are planned, precommercial thinnings, where prescribed, shall be designed to attain maximum merchantable cubic foot volume at rotation.
MA25-20J Stocking control and other timber stand improvement treatments shall be applied in the Dry Productive, Moist Productive, and Lodgepole Pine Working Groups when necessary to meet resource goals of the Management Area.

Timber Standards and Guidelines: Sale Preparation

MA25-20K Operating season for logging and post sale operations shall be unrestricted except to protect roads, soil resources, and water resources. To protect fawning (June), the operating season may be restricted on a case by case basis in designated fawning

areas.

Roads Standards and Guidelines

MA25-17A The transportation system should be adequate for logging, post sale activities and protection, and coordinated with the needs of range and other resources.
MA25-17B Long-term local roads for timber access shall be planned, constructed, maintained, and operated to be economically efficient. During commercial hauling activities, public access shall be discouraged or prohibited. High clearance vehicles should be accepted during post sale activities.
MA25-17C To limit wildlife disturbance, road density shall be limited to three miles of road open to motorized use (not including snow machines) per square mile of discrete individual Management Area.

Protection Standards and Guidelines: Fire and Fuels

MA25-19A The preferred suppression strategy is contain/control.
MA25-19B Limn destructive burned acreage.
MA25-19C Treat fuels to reduce risk of wildfire to acceptable levels while maintaining long-term site productivity.
MA25-19D Prescribe a level of treatment for natural and active created fuels to protect timber stands and other resources from unacceptable losses caused by wildfire.
MA25-19E Place fire tolerant stands on a prescribed burning schedule where cost effective to meet management and objectives.

Protection Standards and Guidelines: Insect and Disease

MA25-19F Stands with a high level of dwarf mistletoe or root rot shall receive the highest priority for silvicultural treatment.
MA25-19G Stands where uneven-aged management is applied shall be generally free of serious pathogens such as root rots and dwarf mistletoes.
MA2519H Aggressively suppress insects and diseases when outbreaks significantly threaten resource management. Use principles of integrated pest management to select suppression strategies.
MA25-19I High intensity prevention with sound principles of integrated pest man-agreement shall be used. Monitor populations of major pests to be forewarned of outbreak situations.

Prescription 26

Goal Description: Manage deer winter range and fawning habitats to provide conditions which can sustain optimal numbers of deer indefinitely, without degrading habitat characteristics such as forage, cover, and soil.
Description: This applies to Management Area 26.
Desired Future Condition: Deer winter ranges will be managed to provide optimum habitat conditions for deer by maintaining well distributed winter thermal and snow/intercept thermal cover and foraging areas. Wood product outputs will be provided

at a reduced level. Winter recreation activities will be encouraged outside of deer winter range. Access to these areas will be provided on designated through routes to reduce disturbance to wintering deer. Motorized access will be restricted to maintain wildlife habitat effectiveness at higher levels. Even-aged stands, and stands representing different age classes, species mix, and with variable structure will be found across the Forest. Deer winter ranges are an essential part of deer habitat since animals concentrate on these areas from well dispersed summer ranges. In the Methow Valley winter ranges are generally found below 5000 feet elevation, but east of the Okanogan River on the 'North-hap, deer winter range is found where coniferous timber stands provide the necessary thermal cover. The spatial distribution of cover and forage areas on the winter ranges is v q important to reduce the distances deer are required to move between the habitat components.

Recreation Standards and Guidelines

MA26-8A The visual quality objective is modification in sensitivity level 1 road and trail corridors and maximum modification in all other areas.
MA26-8B Roaded modified recreation opportunities should be provided.

Wildlife Standards and Guidelines

MA26-6A Manage all identified deer winter range for the following well distributed cover:

TABLE 4-28 Percent of Deer Winter Range Cover by Area in Prescription 26

Winter Range Cover	East of the Okanogan River	Methow and Other
Snow intercept thermal	≥ 30%	≥ 15%
Winter thermal	≥ 10%	≥ 25%
Hiding	≥ 20%	≥ 0%
Total	≥ 60%	≥ 40%

MA26-6B Where natural vegetation Is not present to support optimal cover amounts, manage existing vegetation to approach cover objectives on a sustained basis. Where potential is not present as a result of previous management activities, manage to attain these percentages.
MA26-6C Cavity nester habitat shall be managed to provide at least 80 percent of potential woodpecker population size.
MA26-6D Non-structural improvements should be implemented where needed.
MA26-6E Structural improvements and maintenance should be implemented where needed.

Range Standards and Guidelines

MA26-11A livestock grazing shall be allowed as long as wildlife habitat values are maintained or are increased.
MA26-11B Eighty-five percent of the annual available browse shall be for wildlife and

15 percent for domestic livestock. (Refer to forage utilization standards in the FOREST PIAN, CHAPTER 4 - Forestwide Standards and Guidelines.)

Timber Standards and Guidelines: Planning

MA26-20A Scheduled and non-scheduled timber harvests shall be designed to perpetuate deer habitat and to address current habitat needs.
MA26-20B Encourage use of slash generated by logging and other silvicultural activities for firewood to the extent practical, and eliminate or prohibit such use where necessary to meet the goals of this Management Area.

Timber Standards and Guidelines: Harvest

MA26-20C Uneven-aged or even-aged management may be practiced in the moist productive, dry productive, and low productive working groups.
MA2620D Even-aged management shall be applied in the lodgepole pine working group.
MA26-20E A created opening for wildlife management purposes is an area where dominant conifer regeneration is less than **SIX** feet tall following clearcutting, seed tree cutting, or overstory removal cutting.
MA26-20F Rotation length shall be based on meeting structural needs of deer cover.
MA26-20G Overstory removal of shelterwood and seed trees shall be scheduled to **1)** prevent unacceptable damage to regeneration from logging or fuel treatment and 2) prevent unacceptable insect and disease infestation of regeneration.

Timber Standards and Guidelines: Reforestation

MA26-20H Western larch composition in stands to be managed for cover should not exceed 20 percent.
Timber Standards and Guidelines: Sale Preparation
MA26-20I Operating season for logging and post sale operations shall be restrict- ed when necessary to protect roads, soil, water, deer winter range, and fawning areas.
MA26-20J To protect deer during winter, operations shall be prohibited December through March except east of the Okanogan River. Logging and past sale operations shall be limited to protect fawning during June.

Roads Standards and Guidelines

MA26-17A On local roads, public access shall be discouraged or prohibited during periods of commercial hauling. High clearance vehicles should be accept- ed during post sale activities.
MA26-17B To limit wildlife disturbance. road density shall be limited to one mile of road open to motorized use per square mile of discrete individual Management Area Exceptions to this road density may be permitted provided they meet the goals of the management area.
MA26-17C Access by motorized vehicles shall be prohibited December through March, except for designated through routes Winter haul may be permitted pro- vided the goals of the management area are met. East of the Okanogan River, winter logging and hauling

should not be restricted but access by motorized vehicles not associated with logging/hauling and administrative use shall be prohibited December 1 to March 31 except on designated through routes Access through fawning area by motorized vehicles shall be prohibited in June, except where designated open.

Protection Standards and Guidelines: Fire and Fuels

MA26-19A The preferred suppression strategy is contain/control.
MA2619B Limit acres burned by habitat-damaging wildfires.
MA26-19C Fuels treatment, including the use of prescribed fire, shall provide, where practicable, for the retention and/or enhancement of key wildlife habitat.

Protection Standards and Guidelines: Insect and Disease

MA26-19D Suppress insects and diseases when adversely affecting vegetation essential for maintaining wildlife habitat and unacceptable damage to resources would occur If no controls are applied.
MA26-19E Stands where uneven-aged management is applied shall be generally free of serious pathogens such as root rots and dwarf mistletoes.

End of MA Prescriptions.

Chapter 5: Implementation of the Forest Plan

Introduction

This chapter explains how management of The Forest will be guided by the implementation of this integrated resource plan instead of by functional plans.

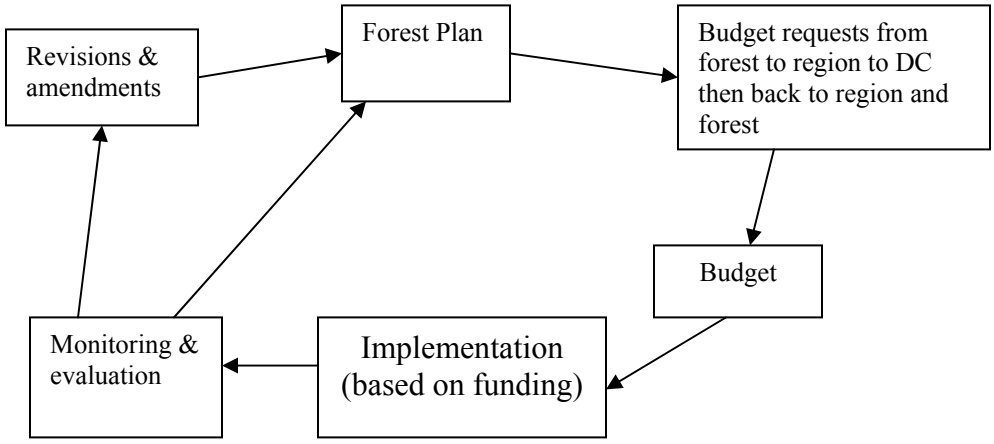
This Forest Plan, used in conjunction with Forest Service Manuals and Handbooks and the Pacific Northwest Regional Guide, establishes the direction for the Okanogan National Forest for the next 10 to 15 years.

The chapter also describes:

- Transition from past management activities and objectives to implementation of this integrated plan
- The relationship between project scheduling, environmental analysis, and the Forest Plan
- Monitoring and Evaluation
- Circumstances which could require amendments and revisions to the Forest Plan.

Figure 5-1 displays the Forest Plan implementation process.

FIGURE 5 - 1: Implementation Process



Implementation Direction

Implementation of the Forest Plan occurs through identification, selection, scheduling, and execution of management practices to meet management direction and achieve desired future conditions as stated in the FOREST PLAN, Chapter 4. Implementation also involves responding to proposals by others for use and/or occupancy of National Forest System lands.

Transition from Past Management

This Forest Plan serves as the single land management plan for the Okanogan National Forest. All other land management plans are replaced by the direction in this plan.

All outstanding and future permits, contracts, cooperative agreements, and other instruments for occupancy and use of lands included in the Forest Plan will be brought into agreement with this Forest Plan, subject to the valid existing rights of the parties involved; this will be done as soon as practicable, and generally within three years of the date of this Plan. The following is a list of land and resource management plans superceded by this Forest Plan:
The **1969** Okanogan National Forest Timber Management Plan
The **1969** Winthrop Ranger District Multiple-Use Plan
The **1969** Conconully Ranger District Multiple-Use Plan
The **1969** Twisp Ranger District Multiple-Use Plan
The **1969** Okanogan National Forest Land ownership Adjustment Plan
The **1970** Golden Horn Multiple-Use Survey Report
The **1970** Hart's Pass Multiple Use Survey Report
The **1970** Liberty Bell Multiple Use Survey Report
The **1970** Sawtooth Multiple-Use Survey Report
The **1972** Okanogan Trails Management Plan
The **1975** Biological Unit Plan for the Methow Deer Herds
The **1978** Visual Resource Management Plan
The **1978** Okanogan National Forest Off-Road Vehicle Plan
The **1979** Tonasket Planning Unit Land Management Plan
The **1979** Pasayten Wilderness Management Plan
The **1980** Five-year Interim Road Management Plan

The 1984 Early Winters Alpine Winter Sports Study final EIS, North Cascades Joint Plan, and Pacific Crest National Scenic Trail Comprehensive Plan are incorporated by reference to this Plan.

Timber

The schedule of timber sale offerings contained in FOREST PIAN, APPENDIX D will be updated at least annually. All timber sales offered for sale after issuance of the Forest Plan will be in compliance with direction contained in the Plan. Timber sales now under contract would be administered under provisions of the existing contracts. Changes to existing timber sale contracts may be proposed on a case by case basis where overriding resource protection considerations are present.

All reforestation, timber stand improvement and related silvicultural activities proposed following issuance of the Forest Plan will be in compliance with direction contained in the Plan. Existing contracts for non-timber sale silvicultural work issued prior to Forest Plan approval will continue to be administered under provisions of the preexisting contracts. Changes to pre-existing contracts may be made on a case by case basis when overriding resource considerations exist. On going non-timber sale silvicultural work

being accomplished by Forest Service crews will immediately comply with direction upon approval of the Forest Plan.

Functional timber plans such as the Forest Tree Improvement Plan, Seed Orchard Management Plans, and Tree Seed Inventory Plan will be brought into compliance with direction contained in the Forest Plan within two years of issuance. Updates to functional plans will be in compliance with provisions of the Forest Plan.

Recreation

Issuance of new recreation special use permits or reissuance of existing annual recreation special use permits will be consistent with Forest Plan direction on the first issuance or reissuance date following Forest Plan implementation.

Reissuance of existing term recreation special use permits will be consistent with Forest Plan direction on the first reissuance date or the first proposed permit transfer date following Forest Plan implementation.

The Forest Travel Plan will be consistent with Forest Plan direction on the first reissuance date following Forest Plan implementation.
The Memorandum of Understanding between Okanogan County and the Okanogan National Forest relating to the county snowmobile grooming program will be consistent with Forest Plan direction prior to the first snowmobile grooming season following Forest Plan implementation.

Wildlife and Fish

Within two years after implementation, habitat survey schedules and habitat improvement project schedules will be prepared for a five-year period.

Range

Existing AMPs and grazing permits will be in compliance with Forest Plan direction on the first revision of the AMPs following Plan implementation.

In implementing the Forest Plan, any necessary adjustments between existing permitted livestock numbers and Plan direction will be made by evaluating management direction for allotments, and determining if a change in management intensity for the allotment is necessary. Factors influencing this decision will include: permit status, condition of improvements, funds available, priority needs on other allotments, and ability to meet standards and guidelines in this Forest Plan.

Minerals

New minerals lease applications, permits, contracts, and operating plans will be evaluated for consistency with the Forest Plan as they are reserved or proposed. All existing permits and operating plans will be reviewed for consistency with Forest Plan standards and

guidelines within one year and operators and permitees will be notified of any necessary modifications.

Minerals material sales now under contract will be administered under provisions of the existing contracts. Changes to these may be proposed on a case by case basis where overriding resource protection considerations are present.

The Forest Service has no authority to modify stipulations attached to existing mineral leases, so none will take place.

Lands

Several steps must be taken before the Forest's Land Ownership Adjustment Program will be consistent with the Forest Plan. These steps and target dates are listed below:

- Prepare preliminary lists and maps of the 6 groups of National Forest Lands (see FOREST PLAN, CHAPTER 4 - Lands Program Complete within 6 months of approval of Forest Plan.
- Solicit public input on the above lists and maps. Complete within one year of approval of Forest Plan.
- Prepare final list and maps of groups of lands. Complete within 15 months of completion of Forest Plan.
- See that all future land ownership adjustment proposals agree with final listing. initiate within **15** months of approval of Forest Plan

Project Scheduling and Environmental Analysis

The scheduling of projects is in response to the management direction in the Forest Plan and the near term management needs and opportunities. Execution of projects is in response to the annual budget. Appendices contain ACTIVITY schedules. These activity schedules represent a pool of possible projects from which IMPLEMENTATION schedules (specific, funded projects) are developed in conjunction with funding approvals.

Upon approval of a final budget, the Forest finalizes and implements the annual program of work Accomplishment of the annual program of work results in the incremental implementation of the management direction of the Forest Plan.

Projects will be subject to environmental analysis and documentation in accordance with NEPA. Appropriate public involvement will be a part of the analysis process. Regardless of the form of NEPA documentation, an analysis file will be maintained and available for public review.

Monitoring and Evaluation

Table 5-1 identifies the key activities and outputs to be monitored during the implementation of this plan. This table is based on detailed information found in Forest Plan Monitoring Worksheets that are located in the planning record at the Okanogan

National Forest Supervisor's Office. The following are the three kinds of monitoring that are represented in Table 5-1.

Implementation Monitoring

Forest and Ranger District personnel conduct implementation monitoring as part of their routine assignments and document the results in project files as part of their management responsibilities. Use implementation monitoring to determine if plans, prescriptions, projects, and activities are implemented as designed and in compliance with Forest Plan objectives and Standards and Guidelines.

Implementation monitoring will accomplish NFMA monitoring requirement 219.12(k). Compare planned versus applied management standards and guidelines to determine if Objectives are achieved.

Effectiveness Monitoring

Effectiveness monitoring determines if plans, prescriptions, projects, and activities are effective in meeting management direction, objectives, and the standards and guidelines. This level of monitoring is conducted by resource and/or technical specialists on a limited basis as determined by resource values and risks, and public issues. Begin effectiveness monitoring only after determining that the prescription, project, or activity to be monitored has been implemented according to the Forest Plan direction.

Effectiveness monitoring will accomplish the following NFMA monitoring requirements:

- Quantitatively compare planned versus actual outputs and services [219.12(k)(l)].
- Measure effectiveness of prescriptions, including significant changes in land productivity [219.12(k) (Z)].
- Determine planned cost versus actual cost associated with carrying out prescriptions [219.12(k) (3)l.
- Determine the populations trends of the management indicator species and relationship to habitat changes [219.19(a)(6)].
- Evaluate the effects of National Forest management on adjacent land, resources, and communities [219.7(f)].
- Identify research needs to support of improve National Forest management (21 9 28).
- Determine f land is adequately restocked [219.12(k)(i)].
- Determine, at least every ten years, If land unsuitable for timber production has become suitable [219.12(k)(5)(ii)].
- Determine whether maximum size limits for harvest areas should be continued
- 121 9.1 2(k) (5) (iii)].
- Ensure that destructive insects and disease organisms do not increase to potentially damaging levels following management activities [219.12(k)(5)(iv)].

Validation Monitoring

Validation monitoring determines whether the initial data, assumptions, and coefficients used in development of the Forest Plan are correct, or if there is a better way to meet forest planning regulations, policies, goals, and Objectives. Conduct validation monitoring when effectiveness monitoring results indicate basic assumptions or coefficients are questionable. Generally, conduct validation monitoring by establishing permanent plots or studies in close coordination with research personnel. Limit the scope of validation monitoring to those coefficients and standards that are not reasonably substantiated by existing research. Monitoring will determine:

- If Management Area direction is being applied as directed.
- If standards are being followed.
- If the Forest is achieving the objectives of the Forest Plan.
- If application of Management Area direction is achieving desired conditions.
- If the effects of implementing the Forest Plan are occurring as predicted.
- If the costs of implementing the Forest Plan are as predicted.
- If management practices on adjacent or intermingled non-National Forest System land are affecting the Forest Plan goals and objectives.
- If implementation of the Forest Plan is keeping other agencies from reaching their stated objectives.

Evaluation of the results of the site-specific monitoring program will be documented in the annual evaluation report. The significance of the results of the monitoring program will be analyzed and evaluated by the Forest interdisciplinary team. Based on the evaluation any need for further action is recommended to the Forest Supervisor.

Actions directed by the Forest Supervisor could include one or several of the following:

- A determination that no action is needed.
- Distinct Ranger may be directed to improve application of management direction.
- Management direction for a particular piece of land may be modified as a Plan amendment.
- The standards and guidelines may be modified as a Plan amendment.
- The projected schedule of outputs may be modified as a Plan amendment.
- The needed action may singly or cumulatively be so significant as to cause the Forest Supervisor to initiate revision of the Plan.

Monitoring actions appear on Table 5-i. The following definitions will assist in understanding the contents of the table.

- Action/Effect Monitored - This is a concise description of the specific tem to be measured.
- Objective of Monitoring - A statement indicating the purpose of monitoring this specific item.
- Method of Monitoring/Frequency - Description of the monitoring techniques and/or sources of information to be employed. Frequency details how often monitoring will occur.
- Unit of Measure -Where feasible, a standard unlit such as acres will be measured. Some monitoring items will not have a unit of measure.
- Reporting Period - Results of monitoring will be summarized and reported once each reporting period.
- Precision/Reliability(- Precision refers to the accuracy standard to which monitoring information will be collected. Reliability is an indication of how accurately the monitoring sample would reflect the total forest situation. A qualitative three class system is used to rate both precision and reliability, High (H),
- Moderate (M), and Low (L). A rating of H/M would indicate high precision, moderate reliability.
- Data Storage - Indicated location or format of monitoring information storage.
- Responsibility - Indicates the specific position responsible for collection, evaluation and maintenance of monitoring information. This constitutes a delegation from the Forest Supervisor, who has overall line responsibility.
- Monitoring Cost - Monitoring costs, in thousands of dollars, are only those which are in addition to on going monitoring processes. No costs are assigned to activities which are already occurring.
- Threshold of Variability- A statement which describes the tolerance limits within which actual performance can vary from predicted performance When these limits are exceeded, further evaluation is triggered. In some cases a standard may be specified.

Table 5-1 Monitoring Actions [with Appendices]

Amendments and Revisions

The Forest Plan incorporates legal mandates, professional judgment, and the public's

stated concerns into the future vision of the Forest. It charts a path for getting there by developing management goals and objectives and translating them into management direction in the form of Standards and Guidelines for Management Areas on the Forest National Forest planning is a dynamic process, and the products – Forest Plans are similarly dynamic. Forest Plans can and should be modified if conditions warrant as management goals are applied on the ground or goals and objectives, or activities the goals generate, may no longer be appropriate. In such instances, activities may be tailored to fit the resource, or planning objectives as stated in the Forest Plan may be amended. Plans do not apply direction in site-specific management activities. It would be unrealistic and wrong to try to identify, analyze, and schedule the myriad projects or activities that occur on a National Forest. Instead, this type of site-specific planning occurs at the project level planning stage, such as allotment management planning
The Forest Supervisor may amend the Forest Plan. Based on an analysis of the objectives, standards, and other contents of the Forest Plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change. If the change resulting from the proposed amendment is determined to be significant, the Forest Supervisor shall follow the same procedure as that required for development and approval of a Forest Plan If the change resulting from the amendment is determined not to be significant for the purposes of the planning process, the Forest Supervisor may implement the amendment following appropriate public notification and satisfactory completion of NEPA procedures.

The Forest Plan shall ordinarily be revised on a 10-year cycle or at least every 15 years It may also be revised whenever the Forest Supervisor determines that conditions or demands in the area covered by the Forest Plan have changed significantly or when changes in RPA policies, goals, or objectives could have a significant effect on Forest level programs. In the monitoring and evaluation process, the Interdisciplinary Team may recommend a revision of the Forest Plan at any time. Revisions are not effective until considered and approved in accordance with the requirements for the development and approval of the Forest Plan. The Forest Supervisor shall review the conditions on the land covered by the Forest Plan at least every five years to determine whether conditions or demands of the public have changed significantly.